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ALPHABETICAL LIST OF CASES[1]

[1] With the exception of a few cases, fictitious names have been used for the purpose of disguise.

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HARVARD BUSINESS REPORTS

VOLUME 5

HARVARD BUSINESS REPORTS

Ordway Bakery Company[1]

BAKERY—BREAD AND PASTRY

Reorganization—*Change from Proprietary to Corporate Form.* The proprietor of a bakery with annual sales of $30,000 planned to form a partnership with his two sons as junior partners. His objects were: to reduce the amount of his income tax; to provide that control of the business should pass to his sons at his death and that his daughters should share in the profits; and to retain control himself during his life. Lawyers whom he consulted advised him to incorporate, pointing out that a partnership would not protect the interests of his daughters, that a complicated partnership agreement would be necessary to insure the desired division of profits and control, and that the death of any partner might interfere with the operation of the firm. Although to incorporate would cost more than to form a partnership, would involve larger total income taxes, and would necessitate the keeping of various records prescribed by law, the proprietor decided to incorporate. He issued only common stock, giving enough to his sons to insure them eventual control but having himself made trustee of their interests during his life.

(1924)

In April, 1924, Mr. E. A. Ordway asked the law firm of Upkin & Thorndike[1] for legal advice on the formation of a partnership. Mr. Ordway had been in the bakery business for many years; for 15 years he had been the head of his own bread and pastry company. He had built up his organization until in 1923 the sales amounted to about $330,000. The annual net profit on sales, before the salaries of Mr. Ordway and his two sons were paid, was about $50,000. The book value of the bakery was about $110,000. Mr. Ordway had followed conservative accounting practices, however, and the lawyers estimated that his net worth including goodwill was $210,000.

Mr. Ordway purchased flour in carload lots directly from mills. He paid his accounts promptly, usually taking the cash discounts offered for payment in 10 days. He made all his sales for cash payment within 2 days, charging interest of 6% per annum on

[1] Fictitious name.

accounts due over 48 hours. He sold through between 40 and 50 wagon vendors, who peddled to private houses and to stores. The vendors made the sales, deliveries, and collections for the bakery. When the company employed a vendor, it required a deposit of $100 from him. If the vendor failed to collect an account within two days, the amount uncollected was taken out of his deposit. This amount was refunded if the account was paid.

Mr. Ordway was about 70 years old; he had two sons, aged 33 and 35, who acted as salaried assistant managers in the business, and three daughters. The company was organized as a sole proprietorship, and Mr. Ordway received all the profits. Although his children shared in these profits, Mr. Ordway paid taxes on them as a part of his personal income. Mr. Ordway planned to form a partnership with his sons as junior partners. He gave three reasons for the proposed action: First, he wished to divide the profits among his children in order to reduce the taxes on his income; second, he wished to provide that after his death the control of the business would be divided between his sons, and that his daughters would receive a share of the profits; and third, he wished to retain control of the company as long as he lived. Mr. Ordway requested the law firm of Upkin & Thorndike to draw the papers necessary for the formation of the partnership.

The lawyers suggested to Mr. Ordway that his objects would be obtained better by incorporation than by the formation of a partnership. They pointed out that a partnership would not take care of the interests of his daughters and that incorporation would. The lawyers suggested that Mr. Ordway incorporate the company, issue only common stock, and divide the interests in his business between his five children by giving them different blocks of shares. He could issue sufficient shares to his sons to give them control and could place those shares in trust, with himself appointed as trustee to vote the stock as long as he lived. The lawyers pointed out that a complicated partnership agreement would be necessary to insure the desired division of the profits and that complications might arise from such an agreement at the death of Mr. Ordway. Moreover, when any member of a partnership died, a thorough inventory, valuation, and accounting had to be made in order to determine the value of his share. Then,

unless one of the remaining partners bought the interest of the deceased, the firm had to pay the amount of that interest to the heirs of the deceased. Incorporation, furthermore, would limit Mr. Ordways' liability for the debts of the company. This limitation of Mr. Ordway's personal liability would decrease the company's borrowing power. The company, however, usually did not borrow large amounts, although at times its bank borrowings amounted to $35,000.

Upkin & Thorndike reported that the total income taxes, including those paid by individuals as well as those paid by the business, would amount to about 7% more under a corporate form of organization than under a partnership form. The income of a partnership was taxed as "business income" under the state law, but was not taxed under the Federal law. Income which members of a partnership derived from the partnership was tax exempt under the state law, but was taxable both under the normal tax and the surtax provisions of the Federal law. The income of a corporation was taxed as such both under the state and under the Federal tax laws. Income derived from a corporation in the form of salaries was taxed by the state as "business income" and by the Federal Government under the normal and the surtax provisions of the income tax law. Personal income derived from dividends of corporations was exempt from taxation under the state law and the normal tax provision of the Federal law, but was subject to Federal surtaxes. Upkin & Thorndike stated that the tax situation might be changed at any time by Congress or by the state legislature. The interests which Mr. Ordway would give to his children would not be subject to the gift tax, which was effective on all amounts over $50,000. As the amounts which Mr. Ordway's heirs would receive at his death would be the same under either plan of organization, the inheritance taxes which they would have to pay also would be the same.

It would cost more to incorporate than to form a partnership. The lawyers estimated that legal fees, stamp taxes, and the charter necessary for incorporation would cost about $1,000. Publicity and special reports were required of a corporation but not of a partnership. A corporation was required to file annual financial statements and to keep minutes, stock books, and other special records in a prescribed manner. Mr. Ordway's company

would not be large enough to permit the continuous employment of a lawyer for this work, and individual consultations with lawyers were expensive. Neither Mr. Ordway nor his sons were qualified to keep properly the records required of a corporation. If the prescribed records were not kept or the prescribed procedure not followed, the company might be fined by the state.

Mr. Ordway decided to incorporate his business. He issued 1,000 no-par-value shares of common stock with a book value of approximately $110 each. Mr. Ordway distributed the stock as the lawyers had advised, making himself trustee of his sons' interest so that he might retain control during his life.

COMMENTARY: Because of Mr. Ordway's age, it was doubtful whether he would continue much longer to take an active part in the management of the business. If a partnership had been formed, it would have had to be reorganized upon his death, since the life of such a form of organization does not extend beyond the life of any one of the partners. As has frequently happened in other instances, moreover, there might be dissension if not direct conflict among Mr. Ordway's heirs. Not infrequently one heir wishes to liquidate his holdings in the business. This step, which is most difficult in a partnership, is rendered relatively simple in a corporation, since the ownership of stock certificates may change without in any way affecting the organization.

By forming a corporation and establishing a voting trust Mr. Ordway made certain that his wishes would govern the operation of the business. Had he failed to take this step, it probably would have been found necessary to incorporate the business after his death because of the various interests involved. A slight increase in taxes and the lawyer's fee were low premiums to pay to insure continued operation of the business and an equitable distribution of both future earnings and the responsibility of management.

Although it apparently was not considered, another plan of effecting the desired distribution of ownership of the business involved issuing preferred stock to the daughters and all the common stock to the sons. Mr. Ordway would be assured of control by the establishment of a voting trust, his daughters would receive in all probability a regular income, and the sons would eventually have complete control of the business.

January, 1928 C. E. F.

Coe Utilities Company[1]

PUBLIC UTILITY—GAS AND ELECTRICITY

Refunding—*Choice between Additional Stock or Issue of Bonds to Refund Coupon Notes.* Because interest rates had declined, a gas and electric company wished to refund an issue of 7% coupon notes callable at 105 and also to secure additional capital. Since it did not want to reduce the high dividend rate on its outstanding common stock, and since the state levied a tax on excess capital stock, the company estimated that to issue 5% first mortgage bonds would be substantially cheaper than to offer a new issue of common stock. The company decided to secure about two-thirds of the required sum by an issue of bonds and the remainder by the sale on the open market of some common stock previously issued but not sold.

(1922)

In December, 1922, because of low current rates of interest, the Coe Utilities Company reviewed methods of refunding $200,000 of 7% coupon notes which were due January 1, 1924, or callable at 105 on January 1 of any year. In addition to $210,000 needed for refunding the notes, the company required $100,000 for additions and extensions to be made in 1923.

The Coe Utilities Company supplied gas and electricity in Ashton, Massachusetts, a town of 75,000 population. The company manufactured its gas, but purchased its electricity; in 1921, it had sold 380,000,000 cubic feet of gas and 4,207,000 kilowatt hours of electricity. A comparative balance sheet and a surplus account statement of the Coe Utilities Company from June 30, 1918, through December 31, 1922, are given in Exhibits 1 and 2.

The company had sold the $200,000 issue of 7% coupon notes in 1919 for the purpose of refunding bank loans. In 1921 the Coe Utilities Company had needed additional capital for normal expansion, and, because of the high rates of interest at that time, the company had authorized and offered to the stockholders a common stock issue of 2,000 shares with a par value of $50. The company was able to dispose of only 1,176 shares to the stockholders at $82.50 per share, the price which the Commission of the Department of Public Utilities had authorized. There was no attempt to sell the balance on the open market; such action

[1] Fictitious name.

EXHIBIT I

COMPARATIVE BALANCE SHEET OF COE UTILITIES COMPANY, JUNE 30, 1918, THROUGH DECEMBER 31, 1922

	1918 June 30	1919 June 30	1920 June 30	1921 June 30	1922 Dec. 31
ASSETS					
Investment, Gas	$ 803,115.24	$ 823,266.62	$ 849,118.76	$ 880,027.97	$ 903,257.98
Investment, Electric	147,551.41	152,640.59	166,077.87	274,791.78	391,797.41
Current Assets	144,933.99	344,475.26	368,432.54	379,114.32	277,739.72
Total	$1,095,600.64	$1,320,382.47	$1,383,629.17	$1,533,934.07	$1,572,795.11
LIABILITIES					
Common Stock	$ 600,000.00	$ 600,000.00	$ 600,000.00	$ 658,800.00	$ 658,800.00
Premium on Common Stock	91,901.12	91,901.12	91,901.12	130,121.12	130,121.12
Bank Loans	100,000.00	340,000.00	350,000.00	217,500.00	125,000.00
Coupon Notes	....	....	....	200,000.00	200,000.00
Current Liabilities	73,000.37	68,758.55	111,028.90	92,697.80	214,394.69
Balance of Profit and Loss Account	230,699.15	219,722.80	230,699.15	234,815.15	244,479.30
Total	$1,095,600.64	$1,320,382.47	$1,383,629.17	$1,533,934.07	$1,572,795.11

Exhibit 2

Comparative Surplus Account of Coe Utilities Company, June 30, 1918, through December 31, 1922

	1918 June 30	1919 June 30	1920 June 30	1921 June 30	1921* Dec. 31	1922 Dec. 31
Credits						
Balance at Beginning of Fiscal Period	$230,699.15	$230,699.15	$219,722.80	$230,699.15	$234,815.15	$209,595.59
Net Income, Gas	62,933.32	26,420.67	70,715.66	79,747.05	26,425.91	196,717.28
Net Income, Electric	48,923.27	47,469.71	52,686.29	70,916.24	20,343.37	
Other Credits	23,961.28	7,989.75	24,489.64	12,152.36	....	1.89
Total	$366,517.02	$312,579.28	$367,614.39	$393,514.80	$281,584.43	$406,314.76
Debits						
Dividend Rate†	17%	12%	15%	15.8%	7%	20%
Dividends Paid	$102,000.00	$ 72,000.00	$ 90,000.00	$ 94,704.00	$ 46,116.00	$131,760.00
Interest Paid	8,096.10	18,521.31	19,947.13	24,654.81	21,692.63	26,704.25
Depreciation	18,892.36	....	24,773.59	20,057.02	....	....
Other Deductions	6,829.41	2,335.17	2,194.52	19,283.82	4,180.21	3,371.21
Balance at End of Fiscal Period	230,699.15	219,722.80	230,699.15	234,815.15	209,595.59	244,479.30
Total	$366,517.02	$312,579.28	$367,614.39	$393,514.80	$281,584.43	$406,314.76

*Six months ending December 31. †Par value, $50.

would have required the approval of the commission, and the company preferred to hold the stock for possible disposal later at a higher price. The company obtained the remainder of its financial requirements at varying rates through bank loans on its demand notes.

In December, 1922, because interest rates had returned to a much lower level, the company wished to call the 7% note issue and to replace it with either capital stock or first mortgage bonds. First mortgage bonds bearing 5% interest could be sold on a 4¾% basis at about 103 net to the company. The law permitted a public utility to issue bonds up to 50% of its total investments in fixed assets. In the latter part of 1922, the Coe Utilities Company's investment in fixed assets was approximately $1,300,000.

The company's stock, all of which had a par value of $50, was not listed on the open market, but small blocks had been sold occasionally from 1918 through 1922 at average prices ranging from $84 to $120, as shown in Exhibit 3.

EXHIBIT 3

AVERAGE PRICES AT WHICH STOCK OF COE UTILITIES COMPANY WAS SOLD FROM 1918 THROUGH 1922

(Par Value, $50)

Year	Selling Price	Annual Dividend per Share
1918	$104	$ 8.50
1919	95	6.00
1920	84	7.50
1921	99	7.20
1922	120	10.00

In December, 1922, the Coe Utilities Company's stock was selling around $140 per share; if the company issued new stock at that time, it could be sold at about $130 per share net to the company, the price which the commission authorized.

A new issue of stock would result in the company's payment of additional taxes. The Massachusetts tax was $27.07 per $1,000 on the "value of the franchise" which was not taxed locally. In December, 1922, 13,176 shares of Coe Utilities Company stock were outstanding. The total plant investment in December, 1922, was about $1,300,000. The executives assumed

that the Commission of the Department of Public Utilities would value the outstanding stock at $130 per share. The management computed the value of the franchise and the tax which the company would have to pay on its outstanding stock as follows:

13,176 shares of stock at $130 per share	$1,712,880.00
Deduct plant investment, on which local tax is levied	1,300,000.00
Value of the franchise not taxed locally	$ 412,880.00
Annual tax at $27.07 per $1,000	11,176.66

If the company issued the proposed stock, $210,000 of the proceeds would be used to retire the note issue and would not be converted immediately into fixed assets. The value of the franchise not taxed locally would be increased, therefore, by that amount, on which the company would have to pay an additional annual tax of $5,684.70, computed at the rate of $27.07 per $1,000.

The total number of shares to be issued, including the 824 unsold shares of the previous issue, would be 2,400, since it was customary for stock to be issued in units of 100 shares. This issue, if sold, would yield $312,000 to the company. If the company issued bonds, it would incur no additional tax.

In 1922 the company had paid $10 per share in dividends, and it would have to maintain this rate in order to insure the future sale of stock. The company, moreover, could not reduce the dividend rate, in fairness to the stockholders, because many of them had paid prices far above par for their holdings, so that the current dividend rate yielded them the current rate of interest only. The annual dividend charge for 2,400 shares at $10 per share would be $24,000. The annual cost of the stock issue, therefore, would be $24,000, plus the extra annual franchise tax of $5,684.70, or $29,684.70.

If the company should issue 5% bonds, $300,000 of them would be sufficient to provide the needed capital, since they could be sold for $309,000 net to the company. The annual rate at which the company would pay interest would be less than 5%, since the bonds could be sold above par. The fixed charges on $300,000 of 5% bonds would be $15,000 per annum. The annual expense of an issue of 2,400 shares of stock, therefore, would be $14,684.70 more than that of $300,000 of bonds.

The company decided to call its 7% coupon notes at 105 on January 1, 1923, to issue $200,000 of 20-year 5% first mort-

gage bonds, and to sell the remainder of the stock authorized in 1921 on the open market. The new bonds sold at 103 on a basis of approximately 4¾% per annum. The 824 shares of stock, previously issued but not sold, were disposed of at $130 per share.

COMMENTARY: The problem suggested by this case is whether the aim of public utility finance should be to buy its capital as it would buy equipment, as cheaply as possible, or whether it should aim to construct a well-balanced piece of financial machinery for the distribution of profits.

If the doctrine of "service at cost" is adopted, the tendency will be to buy money just like machinery. If, on the other hand, the aim is to stimulate private initiative through the motive of profit, the capital structure should be devised with a view to making the distribution of profits easy and equitable. The directors of this company seem to have inclined to the latter view, though with some misgivings.

January, 1927 P. C.

Sisson Refrigerator Company[1]

MANUFACTURER—REFRIGERATORS

Dividends—*Passing Dividends in Order to Protect Cash Position.* A refrigerator manufacturing company which, from the time of its organization in 1919 to 1923, had paid no dividends on its preferred stock, paid five quarterly regular dividends on both first and second preferred stocks between February, 1923, and March, 1924, and also began to pay back dividends on the second preferred stock. An audit of the books in March, 1924, developed that the company had operated at a deficit during the first six months of the current fiscal year. The officials did not believe this to be an extraordinary situation, since sales were of a seasonal nature and the company manufactured largely for stock during the first half of the year. Nevertheless, although the company was in need of new permanent capital and to pass dividends on preferred stock would make the sale of any form of securities difficult, the company decided to pass its dividends in order to protect its cash position.

(1924)

The Sisson Refrigerator Company was organized in Detroit, Michigan, in 1919 to manufacture and distribute commercial refrigerators, show cases, counters, and shelving. At the time of it incorporation, the company issued $296,000 of 7% preferred stock and $296,000 of common stock. A subsidiary corporation was formed to own the company's land and factory building. The amount of the Sisson Refrigerator Company's preferred stock was increased from time to time until, in March, 1924, it equaled $655,200, of which $186,800 was first preferred and $468,400 was second preferred. Dividends on the first preferred stock were paid from February, 1923, to and including February, 1924. During the same period, the dividends currently due on the second preferred stock and back dividends of 1¾% on that stock were paid. In March, 1924, the company engaged a public accountant to make an audit in order to determine whether it was advisable for the company to continue to pay dividends.

The company's balance sheets as of August 31 for the four years from 1920 to 1923 are given in Exhibit 1.

The company's net sales from September, 1919, to March, 1924, and its net profits for 1920 and 1921 are shown in Exhibit 2.

[1] Fictitious name.

EXHIBIT 1

BALANCE SHEETS OF SISSON REFRIGERATOR COMPANY, AS OF AUGUST 31, 1920-1923

ASSETS	1920		1921	
Current Assets:				
Cash and Certificate of Deposit	$ 77,263		$ 57,315	
Accounts Receivable	57,932		97,464	
Advances to Salesmen	......		......	
Notes Receivable	257,768		257,536	
Notes Receivable Collateral	......		......	
Interest Accrued on Notes Receivable	3,528		7,824	
Merchandise Inventories	412,879		359,869	
Prepaid Items	......		......	
Total Current Assets		$ 809,370		$ 780,008
Other Assets:				
Machinery, Tools, and Equipment	$200,531		$225,918	
Real Estate	......		......	
Investments	205,920		205,920	
Contracts with Managers and Salesmen	194,000		163,935	
Organization Expenses	120,261		120,260	
Goodwill	200,000		200,000	
Patent Rights	......		......	
Deferred Charges	......		3,139	
Total Other Assets		920,712		919,172
Total Assets		$1,730,082		$1,699,180

EXHIBIT 1 *(Continued)*

BALANCE SHEETS OF SISSON REFRIGERATOR COMPANY, AS OF AUGUST 31, 1920-1923

LIABILITIES	1920		1921	
Current Liabilities:				
Accounts Payable	$190,171		$ 76,847	
Notes Payable:				
Secured	360,000		142,000	
Unsecured			220,000	
Trade Acceptances	10,597		......	
Accrued Expense	......		......	
Total Current Liabilities		$ 560,768		$ 438,847
Mortgage Notes Payable		....		....
Reserves		....		16,537
Subscriptions to Capital Stock		500		500
Preferred Stock	$424,000		$454,000	
Common Stock (par $100)	716,000		721,600	
First Preferred Stock	......		......	
Second Preferred Stock	......		......	
Common Stock (no par value)	......		......	
Total Capital Liabilities		1,140,000		1,175,600
Surplus	$ 28,814		$ 28,814	
Profit and Loss	......		38,882	
Total Surplus		28,814		67,696
Total Liabilities		$1,730,082		$1,699,180

Exhibit 1 (*Continued*)

Balance Sheets of Sisson Refrigerator Company, as of August 31, 1920-1923

Assets	1922		1923	
Current Assets:				
Cash and Certificate of Deposit	$104,391		$ 75,468	
Accounts Receivable	27,730		72,536	
Advances to Salesmen	29,033		8,486	
Notes Receivable	288,866		453,011	
Notes Receivable Collateral	154,433		3,644	
Interest Accrued on Notes Receivable	9,608		18,280	
Merchandise Inventories	327,200		263,455	
Prepaid Items	2,920		......	
Total Current Assets		$ 944,181		$ 894,880
Other Assets:				
Machinery, Tools, and Equipment	$257,614		$269,870	
Real Estate	410,671		412,476	
Investments	40		40	
Contracts with Managers and Salesmen	......		......	
Organization Expenses	......		......	
Goodwill	......		......	
Patent Rights	3,065		3,305	
Deferred Charges	......		33,682	
Total Other Assets		671,390		719,373
Total Assets		$1,615,571		$1,614,253

EXHIBIT 1 *(Continued)*

BALANCE SHEETS OF SISSON REFRIGERATOR COMPANY, AS OF AUGUST 31, 1920-1923

LIABILITIES	1922		1923	
Current Liabilities:				
Accounts Payable	$ 53,430		$ 74,616	
Notes Payable:				
Secured / Unsecured	522,374		323,114	
Trade Acceptances	......		......	
Accrued Expense	18,558		10,297	
Total Current Liabilities		$ 594,362		$ 408,027
Mortgage Notes Payable		194,000		190,000
Reserves		22,388		34,113
Subscriptions to Capital Stock		500		....
Preferred Stock	$468,000		......	
Common Stock (par $100)	......		......	
First Preferred Stock	......		$186,800	
Second Preferred Stock	......		468,400	
Common Stock (no par value)	204,800		204,800	
Total Capital Liabilities		672,800		860,000
Surplus	$131,521*		$122,113†	
Profit and Loss	......		......	
Total Surplus		131,521		122,113
Total Liabilities		$1,615,571		$1,614,253

*Capital credit of $7,431 included.

†After deduction of deferred assets of $7,472 and dividends of $63,123.

Exhibit 2

Net Sales and Net Profits of Sisson Refrigerator Company, 1919-1924

Years	Net Sales for Six Months Sept. 1-Feb. 28	Total Net Sales for Year Sept. 1-Aug. 31	Net Profits on Sales for Year
1919–1920	$248,549	$ 742,747	$28,816
1920–1921	561,176	1,238,088	40,336
1921–1922	468,659	1,137,467	
1922–1923	626,024	1,207,037	
1923–1924	402,923		

Its operating statements for 1922 and 1923 are given in Exhibit 3.

At the time of its incorporation, the company had established a line of credit of $200,000 with each of three Chicago banks. The company at no time had used more than $175,000 of its credit line at each of two of the banks, and had rotated its borrowings so that it was out of debt to each of the three banks for at least four months each year. One of the three banks had agreed to extend the company an additional $100,000 on customers' notes of a duration of not more than six months. The company had taken advantage of this offer from time to time, but not constantly. At one time the company had sold notes of less than six months' duration to a Chicago bank as an investment for the bank's savings department.

Forty per cent of the company's sales were for payment within 30 days, and 60% were made on the installment plan. The company allowed a discount of 5% for payment within 30 days, the terms customary in the industry. On installment sales, a cash payment of 25% of the selling price was made at the time of sale and the remaining 75% was met, in most cases, by 24 notes of equal amounts due in successive months and bearing 6% interest per annum from the date of sale. These terms had not provided sufficient cash for the company to meet its operating expenses, and the company had issued additional preferred stock from time to time. Although the company had made a net profit each year, it never had had sufficient funds to take cash discounts upon purchases of raw materials or to be entirely free from borrowings at any time.

In 1919 the company had made three-year contracts with officers and salesmen. These contracts had been valued on the com-

EXHIBIT 3

OPERATING STATEMENTS OF SISSON REFRIGERATOR COMPANY, FOR YEARS ENDING AUGUST 31, 1922 AND 1923

	1922		1923	
Gross Sales		$1,142,010		$1,232,255
Less:				
Discounts and Allowances	$ 2,169		$ 1,721	
Loss on Goods Returned	2,374	4,543	23,497	25,218
Net Sales		$1,137,467		$1,207,037
Cost of Sales:				
Inventory First of Year	$359,869		$327,200	
Inventory End of Year	327,200		263,455	
Shrinkage	$ 32,669		$ 63,745	
Materials Purchased	284,411		344,042	
Value of Goods Returned	7,796		13,851	
Total Materials Used	$324,876		$421,638	
Labor—Direct	202,007		193,671	
Labor—Indirect	97,826		94,332	
Factory Expense	82,079		85,332	
Freight and Trucking	45,375		51,537	
Total	$752,163		$846,510	
Less: Plant Orders	30,604		16,681	
Factory Cost		721,559		829,829
Gross Profit		$ 415,908		$ 377,208
Operating Expenses:				
Administrative	$151,387		$121,179	
Selling	53,290		58,301	
Salesmen	143,194		107,437	
Interest Payable	29,370		37,893	
Sundry	......		12,396	
Total Operating Expenses		377,241		337,206
Net Income on Sales		$ 38,667		$ 40,002
Other Income:				
Accrued Interest on Notes Receivable		17,727		21,185
Total Income		$ 56,394		$ 61,187

pany's books at $194,000. The common stock, par value $100 a share, had been issued against this amount plus goodwill of $200,000, organization expense of $120,261, which represented actual cash expenditure, and the investment of the officers, amounting to $204,800. Approximately $30,000 of the contracts had been written off in 1921. In 1922 the common stock had been changed to no par value and the contracts with salesmen, goodwill, organization expense, and sundry other assets had been written off.

In the fall of 1922 the company had accepted the offer of a firm engaged in distributing stocks and bonds to underwrite for $80 a share an $800,000 issue of 7%, $100 par value, prior preference preferred stock. The firm had stipulated that it would be necessary for the existing preferred stockholders to allow their stock to be converted into second preferred stock. The preferred stockholders had agreed to this, and the change had been made. Dividends on both classes of preferred stock were payable quarterly on the same dates. The distributing firm had succeeded in disposing of only 1,868 shares of the stock. Upon investigation, the Sisson Refrigerator Company had learned that the firm's financial condition was so precarious that it was useless to attempt to enforce the underwriter's agreement.

By February, 1923, the first dividend-paying date for the new first preferred stock, $144,000 of dividends had been accumulated on the old preferred stock. Upon this date, the company had commenced paying dividends upon both the old and the new preferred stock. In the following five quarters, dividends had been paid as due upon the first and second preferred stock and back dividends of 1¾% had been paid upon the second preferred stock. About $40,000 of the $144,000 of dividends unpaid in February, 1923, had been paid by March, 1924.

When the quarterly dividends were paid in February, 1924, some members of the board of directors protested the payment, stating that in their opinion the company's earnings had not been sufficient to warrant the payment. In March, therefore, a public accountant was employed to ascertain the exact financial condition of the company as of March 31, 1924, with a view to determining whether or not the company should discontinue the payment of dividends until some future date. This accountant recommended various changes in the company's accounts.

In 1922, when the 1,868 shares of prior preference preferred stock had been sold, the treasurer of the company had set up the $37,360 discount allowed the distributing firm as a deferred asset to be amortized over a period of five years. One-fifth, $7,472, had been amortized in the fiscal year ending August 31, 1923; $29,888 remained as a deferred asset. The public accountant was of the opinion that the treasurer's policy had been incorrect and that the remaining four-fifths should be deducted from surplus at once.

The subsidiary corporation which owned the Sisson Refrigerator Company's factory building and land had been consolidated with the parent company in 1922. During the fiscal year ending August 31, 1923, the building, which had cost the company $400,000, had been appraised by experts at $520,000. Because of this high valuation, the treasurer had not charged the customary depreciation upon the building to the operating expenses of the company during the fiscal year 1923. It also had been the policy of the company in the past to disregard, in closing the books at the end of the year, accounts payable for which bills had not yet been received from creditors, or for which bills had not been checked with the merchandise delivered. Such bills ordinarily were those received during the last week of the year. In determining inventory, however, the company included all merchandise on hand. The company decided, upon the advice of the accountant, to deduct from the surplus account of the company as it existed on August 31, 1923, depreciation of $8,981, and accounts payable due at the end of the year but not accounted for, amounting to $28,235. These deductions, together with the deduction in deferred assets, amounted to $67,104, which, with additional adjustments of $23,849, reduced the company's surplus from $122,-113, as of August 31, 1923, to $31,160, as of March 31, 1924.

The accountant also found that the company had operated during the first six months of the fiscal year of 1924 at a deficit of $46,316 which reduced the surplus of $31,160 to a deficit of $15,156. The officials of the company did not believe this to be an extraordinary situation, since the sales of the company were of a seasonal nature and the company manufactured largely for stock during the first six months of the year. In previous years, however, no statements had been collected at the end of the six months' period to determine the profit or loss of the company.

Exhibit 4

Balance Sheet of Sisson Refrigerator Company, as of March 31, 1924

Assets

Current Assets:		
Cash and Certificate of Deposit	$ 52,638	
Accounts Receivable	56,590	
Advances to Salesmen	......	
Notes Receivable	304,184	
Notes Receivable Collateral	105,455	
Interest Accrued on Notes Receivable	10,647	
Merchandise Inventories	338,126 (estimated)	
Prepaid Items	......	
Total Current Assets		$ 867,640
Other Assets:		
Machinery, Tools, and Equipment	$276,944	
Real Estate	412,476	
Investments	40	
Contracts with Managers and Salesmen	......	
Organization Expenses	......	
Goodwill	......	
Patent Rights	......	
Deferred Charges	4,743	
Total Other Assets		694,203
Total Assets		$1,561,843

Liabilities

Current Liabilities:		
Accounts Payable	$ 54,277	
Notes Payable:		
Secured	320,000	
Unsecured	94,045	
Trade Acceptances	......	
Accrued Expense	3,179	
Total Current Liabilities		$ 471,501
Mortgage Notes Payable		188,000
Reserves		57,498
Subscriptions to Capital Stock		....
Preferred Stock	......	
Common Stock (par $100)	......	
First Preferred Stock	$186,800	
Second Preferred Stock	468,400	
Common Stock (no par value)	204,800	
Total Capital Liabilities		860,000
Surplus	$ 31,160*	
Profit and Loss	46,316†	
Total Surplus		15,156‡
Total Liabilities		$1,561,843

*Adjusted. †Loss for seven months. ‡Deficit.

The balance sheet of the Sisson Refrigerator Company as of March 31, 1924, is given in Exhibit 4.

Although the company, in 1924, still needed additional permanent capital, and although to pass dividends on preferred stock would make the sale of any form of securities difficult, the company decided to pass its dividends in order to protect its cash position.

COMMENTARY: In view of its suspension of dividends for the previous four years, it would appear that the Sisson Refrigerator Company began the payment of dividends in 1923 in an attempt to make the purchase of its new issue of preferred stock attractive to investors. An analysis of the financial statements indicates that this payment of dividends was based upon a relatively small surplus.

Because of the company's financial condition, it was very doubtful whether the preferred stock ever would be retired. The accountant, therefore, was justified in recommending that the discount on the first preferred stock be charged against surplus. Although the company was badly in need of new permanent capital, it was apparent from the attempted sale of the first preferred stock that it would have great difficulty in disposing of further securities until a record of earnings had been established. Under such conditions the payment of dividends would have seriously injured its cash position. The company's decision, therefore, was sound.

January, 1928 C. E. F.

James A. Sheehan[1]

INVESTOR

Personal Investment—*Selection of Securities.* An investor who had built up from his savings a small estate, consisting of 40 shares of common stock in three public utility companies, 10 shares of the Morris Plan Company's certificates of indebtedness, and a $5,000 life insurance policy, wished to invest $600 which he had saved. After reviewing the financial and income statements and the information presented in the latest report to stockholders of a public utility company in which he already owned 10 shares of stock, he decided to purchase 10 additional shares of that company's common stock, which was then selling at about $57 a share.

(1925)

In 1918, at the suggestion of a friend, James A. Sheehan used $1,000 of his savings to purchase through a broker United States Steel common stock and Studebaker common stock on a 10% margin. The price of Steel common rose slowly, but that of Studebaker common fell so rapidly that the broker closed out the account to protect himself. Only $60 of Mr. Sheehan's original investment was left.

Again, in 1920, another friend persuaded Mr. Sheehan to buy shares of the Texcalokan Oil and Gas Company, operating in Kansas. This friend pictured the extraordinary profits which the company was sure to make; he pointed out that money in a savings bank drew only 4% interest, while the banks themselves were using the money to make profits of 20% or 30%. Upon his affirmation that Mr. Sheehan also could expect to obtain these large profits by placing money in this oil venture, Mr. Sheehan invested about $1,200. It developed, however, that the company paid dividends in stock and not in cash. After 1920 Mr. Sheehan received no dividends and heard no more about the company.

After these two experiences, Mr. Sheehan became extremely cautious in making investments. In July, 1925, when he was advised to purchase 10 additional shares of common stock of the North American Company, with $600 which he had saved, he reviewed the financial statements of that company and the most recent information available concerning it.

[1] Fictitious name.

As manager and part owner of a company selling office equipment and supplies, Mr. Sheehan received a salary of $5,000 a year. From 1921 to July, 1925, he had built up from his savings a small estate consisting of the following investments:

10 shares American Telephone & Telegraph Company common stock.
20 shares Springfield Gas Light Company common stock.
10 shares Morris Plan Company certificates of indebtedness.
10 shares North American Company common stock.
$5,000 life insurance policy.

Mr. Sheehan had purchased these stocks as investments, intending to hold them over a period of years regardless of fluctuations in their prices from month to month. He had selected common stocks in preference to bonds. A bond owner received only the par amount of the bonds at maturity and 5% or 6% interest in the meantime. Common stocks, on the other hand, could increase in value with the growth of the issuing company. Mr. Sheehan had read Mr. Van Strum's book, *Investing in Purchasing Power,*[2] and agreed with the conclusion expressed there that, over a period of years, common stocks increased more in value and gave a larger return than bonds.

Mr. Sheehan had invested in public utility stocks because of their steady earnings as compared with the earnings of the stocks of most industrial companies. Public utility companies were almost certain to grow as the population of the country increased. These companies, moreover, usually did not depend for their prosperity upon conditions in any one part of the country. The American Telephone & Telegraph Company, for instance, derived its income from properties extending all over the United States. It appeared, also, that the telephone would not be supplanted soon by other means of communication.

Mr. Sheehan had purchased the certificates of indebtedness of the Morris Plan Company for business reasons.

In 1922, when he had married at the age of 47, Mr. Sheehan had commenced payments on a $5,000 life insurance policy. He wanted to increase this amount in order to provide more adequately for his wife in the event of his death, but his wife objected. There were no children to provide for, and Mrs. Sheehan was earning $2,500 a year as buyer in a department store. She

[2] K. S. Van Strum, *Investing in Purchasing Power,* Barron's, Boston, 1925.

was prejudiced against insurance because her father had been forced to give up his policy in term insurance, being unable to pay the increasing premiums.

In the spring of 1925 Mr. Sheehan had asked a stock broker to buy for him more Springfield Gas Light Company stock with $500 of his savings. The broker had advised Mr. Sheehan to purchase instead the common stock of the North American Company, which then had a par value of $10 per share and was selling at about $47 on the New York Stock Exchange. The broker had pointed out that the North American Company was one of the largest and strongest public utility holding companies in the world. Its subsidiaries served Cleveland, St. Louis, Milwaukee, and surrounding territories with electric light and power. The company also owned valuable properties in Illinois, Kentucky, and northern Michigan, and had a substantial interest in the Detroit Edison Company. The capitalization of the North American Company, on December 31, 1924, consisted of $29,-085,750 of 6% preferred stock of $50 par value and $29,236,510 of common stock of $10 par value. The company had paid dividends on the common stock since 1909, the rate in early 1925 being 10% in stock or $2 in cash per share per year. In addition to dividends, the company had earned, after deduction of a depreciation reserve of about 9% of gross earnings, $16.07, $24.59, and $18.19 per share of preferred stock, and $11.93, $3.11, and $3.16 per share of common stock in 1922, 1923, and 1924, respectively. The company's output of electricity, which had been about 740,000,000 kilowatt hours in 1919, was approximately 2,000,000,000 kilowatt hours in 1924. The company's balance sheets and income account and the record of its output of elec-

Exhibit 1

Output of Electricity and Number of Customers of the North American Company and Subsidiaries, 1919-1924.

Year	Output of Electricity	Number of Customers for Electricity at End of Year
1919	740,783,575 kw-hr.	197,552
1920	869,508,760	224,299
1921	853,105,321	249,186
1922	1,543,858,755	478,315
1923	2,153,614,363	598,359
1924	2,328,618,141	644,430
5-year Increase	1,587,834,566	446,878

Exhibit 2

Comparative Consolidated Balance Sheet of North American Company and Subsidiaries, as of December 31, 1919-1924

	1919	1920	1921	1922	1923	1924
Assets						
Property and Plant	$107,128,394	$119,504,435	$129,218,529	$188,860,469	$251,661,142	$293,592,471
Investments	4,058,236	3,674,808	5,242,960	17,911,769	11,170,640	36,480,932
Cash (including Cash Deposited with Trustees)	13,195,686	3,143,074	3,132,562	5,907,712	6,825,961	11,794,088
Notes and Bills Receivable	166,406	57,985	118,128	1,538,676	2,064,646	1,006,595
Accounts Receivable	4,733,743	7,719,199	4,716,257	7,064,541	8,203,205	12,225,738
Materials and Supplies	3,080,770	5,513,422	5,274,254	7,181,849	8,866,597	8,273,859
Prepaid Accounts	86,626	108,728	138,984	158,352	439,057	346,415
Bond and Note Discount	3,122,699	4,014,353	3,131,873	7,799,954	9,323,400	12,429,253
Premium on Securities	4,703,622	4,862,560	4,815,111	2,488,506	....	....
Total	$140,276,182	$148,598,564	$155,788,658	$238,911,828	$298,554,648	$376,149,351
Liabilities						
Preferred Stock, 6%	....	....	$ 14,896,650	$ 18,963,203	$ 19,085,701	$ 29,085,750
Common Stock	$ 29,793,300	$ 29,793,300	15,033,200	21,085,800	26,489,075	29,236,510
Subsidiaries' Preferred Stock	7,306,300	8,638,600	11,908,200	22,313,203	29,110,116	43,421,252
Minority Interest (Subsidiary Companies)	2,210,917	2,156,434	2,025,335	5,074,708	5,070,677	6,321,604
Funded Debt of Subsidiaries	71,677,574	68,148,700	71,854,450	114,629,600	146,166,190	184,464,217
Notes and Bills Payable	1,063,364	6,442,562	1,752,422	2,999,677	4,147,324	426,423
Accounts Payable	2,364,202	2,159,512	2,439,735	4,755,318	4,254,557	4,832,942
Sundry Current Liabilities	443,833	763,201	890,125	1,199,654	2,074,752	2,130,234
Accrued Liabilities	1,948,625	2,235,431	2,388,068	3,780,900	7,206,666	8,433,793
Open Accounts	574,478	552,291	....	....	....	....
Reserves	13,091,907	16,644,903	19,824,116	29,566,736	37,911,711	44,979,485
Surplus	9,801,682	11,063,630	12,776,357	14,543,029	17,037,879	22,817,141
Total	$140,276,182	$148,598,564	$155,788,658	$238,911,828	$298,554,648	$376,149,351

Note: In August, 1921, 50% of the $100 par-value common stock was exchanged for $50 par-value preferred stock, and 50% for $50 par-value common stock. In March, 1923, the par value of the common stock was reduced to $10.

EXHIBIT 3

COMPARATIVE COMBINED INCOME ACCOUNT OF NORTH AMERICAN COMPANY AND SUBSIDIARIES, YEARS ENDED DECEMBER 31, 1919-1924

	1919	1920	1921	1922*	1923†	1924
Gross Earnings	$30,343,837	$39,611,162	$38,853,189	$55,234,492	$75,465,267	$80,117,255
Operating Expenses and Taxes	21,604,199	30,110,351	26,791,255	35,812,044	48,289,198	50,161,763
Net Income from Operations	$ 8,739,638	$ 9,500,811	$12,061,934	$19,422,448	$27,176,069	$29,955,492
Other Net Income	207,644	208,673	307,196	407,183	730,988	1,885,330
Total Income	$ 8,947,282	$ 9,709,484	$12,369,130	$19,829,631	$27,907,057	$31,840,822
Interest Charges	3,547,438	3,459,304	4,603,114	6,667,283	8,830,273	9,862,179
Balance	$ 5,399,844	$ 6,250,180	$ 7,766,016	$13,162,348	$19,076,784	$21,978,643
Depreciation‡	....	....	3,239,832	5,209,882	6,867,996	7,795,811
Balance	$ 5,399,844	$ 6,250,180	$ 4,526,184	$ 7,952,466	$12,208,788	$14,182,832
Preferred Dividends of Subsidiaries	448,782	525,906	684,565	1,318,172	1,813,413	2,469,710
Minority Interest	370,361	327,986	370,310	540,444	1,009,917	1,130,357
Preferred Dividends on North American Company	....	....	....	1,061,998	1,143,022	1,344,942
Common Dividends on North American Company	1,489,665	1,489,665	1,638,631§	1,857,089	3,038,652	2,815,728
Surplus	$ 3,091,036	$ 3,906,623	$ 1,832,678	$ 3,174,763	$ 5,203,784	$ 6,422,095
Earned on Preferred (per share)	....	....	$ 11.65	$ 16.07	$ 24.59	$ 18.19
Earned on Common (per share)	$ 15.37	$ 18.11	$ 8.54	$ 11.93	$ 3.11	$ 3.16

*Includes Cleveland Electric Illuminating Company from April 1, 1922, and Milwaukee Northern Railway Company from July 1, 1922.

†Includes Wisconsin Traction, Light, Heat and Power Company, and the Light & Development Company of St. Louis from April, 1923.

‡Not reported prior to 1921.

§Combined preferred dividends and common dividends on North American Company.

NOTE: Earnings shown on common stock prior to 1921 are based on $100 par value. In August, 1921, 50% of the $100 par-value common was exchanged for $50 par-value preferred, and 50% for $50 par-value common. In March, 1923, the par value of the common stock was reduced to $10.

tricity for the six years from 1919 to 1924, inclusive, appear in Exhibits 1, 2, and 3.

After examining the facts as presented by the broker, Mr. Sheehan had written to *Barron's* inquiring as to that journal's opinion of the common stock of the North American Company. In a few days, he had received from *Barron's* an analysis of the company and a statement that *Barron's* regarded the stock as one of the cheapest on the market at that time. Mr. Sheehan thereupon had purchased 10 shares of North American common stock at $49 a share, par value $10. He considered this stock a sound investment that would give a good return and appreciate in value over a period of years.

In July, 1925, when Mr. Sheehan was considering the purchase of additional shares of the North American Company's common stock, he received the company's semiannual report to stockholders. A comparison of the company's income statement for the 12 months ending June 30, 1925, with the income statement for the

EXHIBIT 4

CONSOLIDATED INCOME STATEMENT OF NORTH AMERICAN COMPANY AND SUBSIDIARY COMPANIES

	Twelve Months Ended June 30 1924	1925
Gross Earnings	$77,768,194.91	$82,941,903.46
Operating Expenses, Maintenance and Taxes	49,227,322.70	51,142,449.44
Net Income from Operations	$28,540,872.21	$31,799,454.02
Other Net Income	833,141.17	3,500,712.73
Total	$29,374,013.38	$35,300,166.75
Deductions:		
Interest Charges	$ 9,928,964.93	$10,720,439.21
Preferred Dividends of Subsidiaries	2,059,688.64	2,956,778.85
Minority Interest	1,013,612.33	1,229,242.41
Total Deductions	$13,002,265.90	$14,906,460.47
Balance for Depreciation Reserves, Dividends, and Surplus	$16,371,747.48	$20,393,706.28
Reserves for Depreciation	7,538,203.50	8,069,227.25
	$ 8,833,543.98	$12,324,479.03
Dividends on North American Preferred Stock	1,144,878.75	1,644,958.25
	$ 7,688,665.23	$10,679,520.78
Dividends on North American Common Stock	2,641,365.75	2,957,005.75
To Surplus after all Dividends and Reserves for Twelve Months	$ 5,047,299.48	$ 7,722,515.03
Total to Depreciation Reserves and to Surplus after all Dividends	$12,585,502.98	$15,791,742.28

12 months ending June 30, 1924, given in Exhibit 4, showed the continued growth of the company.

Mr. Dame, president of the company, made the following statements to the stockholders in the report:

> As was stated in the 1924 Annual Report, a relatively large amount of financing was done toward the close of last year. It is the policy of the company to avail itself of low interest rates and thereby economically to finance for long periods requirements for additional facilities needed to meet the rapidly growing demands for service. Construction of additional facilities is progressing but, as extensions to the various plants and systems will not come into full earning productivity for some time, the Consolidated Income Account to date reflects only to a small extent earnings on the additional capital so obtained while the cost of such capital is included in interest and dividend charges. . . .
>
> It will be observed from the income statement . . . . that total Net Income has increased more than 20% during the 12 months' period.
>
> This increase has been achieved despite two important factors: (1) No returns are yet available on large amounts of capital invested in additions to electric generating and transmission systems now under construction, and (2) the company's coal properties, in common with coal properties generally, have been operating under adverse conditions and consequently, although they have been able to meet all charges for interest and reserves, their contribution to net earnings during the past 12 months has been unusually small.

The output of the company in kilowatt hours had increased from 2,328,618,141 during 1924 to 2,502,500,000 for the year ending June 30,1925. At that time, the company's common stock was selling at approximately $57 a share. The company continued to offer 10% stock dividends on the common stock but, in June, 1925, increased the alternative cash dividend from $2 to $3.40 per share per year.

Mr. Sheehan decided to purchase 10 additional shares of common stock of the North American Company.

Commentary: Mr. Sheehan's attempt to trade in stocks on a narrow margin was dangerous. Even the experienced speculator has found it difficult to judge the market accurately for short swings. Mr. Sheehan lacked financial training; he was interested primarily in the management and part ownership of a company selling office equipment supplies. For these reasons he should have avoided any attempt to speculate on margin.

His reliance on the advice of a friend as to the selection of securities was also dangerous. There was no evidence that this friend had any

basis for giving sound advice. Even if the security which he selected had many favorable features, Mr. Sheehan should not have placed his money in this oil venture without comparing it with sound stocks of established companies in growing industries. The purchase of new issues involves risks which Mr. Sheehan was not in a position to assume.

His decision to hold issues of good companies over a long period regardless of temporary fluctuations in price was wise. There was no indication, however, that Mr. Sheehan had more than the ordinary individual's ability to select investments. It would have been inadvisable, therefore, for him to place his money in only a few stocks. The old adage attributed to Carnegie that the best method is to place all the eggs in one basket and then watch the basket applies only if the individual possesses unusual ability in determining the soundness of the securities he buys.

The location of a majority of the subsidiaries of the North American Company in one of the richest and most rapidly growing sections of the country gave some indication of its probable continued success. Its growth in number of plants and its increased earnings spoke well for the energy of the management directing this enterprise. The policy of paying dividends largely in stock, however, indicated that this program of expansion had not yet been finished; the acquisition of additional properties might have considerable effect on the soundness of the investment.

The danger of owning the common stock of any holding company, moreover, lies in the fact that the earnings are dependent upon the dividends paid on the common stock of the subsidiaries. While this fact may be interpreted as tending to stabilize earnings, since the failure of any one company to show a profit may be offset by the earnings of others, any failure of the utilities in any one territory would tend to make a serious fluctuation in the price of the common stock of a holding company. Because of the location of the subsidiaries, the apparently able management, and the trend of growth, however, the North American Company seemed to be sound.

On this basis it might be argued that an investment in North American Company common stock was desirable. Because of the fact that Mr. Sheehan's holdings were limited to four securities, however, it probably would have been wiser for him to buy neither the Springfield Gas Light Company stock nor that of the North American Company, but to purchase the securities of some other strong company in order to obtain greater diversification and to reduce his losses if one of his investments should prove unprofitable. Since Mr. Sheehan himself probably was not in a position to select this issue, he should have obtained the advice not of an investment house, whose judgment might be influenced

by the securities it sold, but of a recognized commercial bank which could bring to Mr. Sheehan's aid financial advice based on the training which he himself lacked.

January, 1928 C. E. F.

Federal Reserve Banks

Rediscount Rates—*Changes in Boston and New York Districts.* The rediscount rate in the Boston district of the Federal Reserve Bank system was lowered from 4½% to 3½% in June, 1924, where it remained until November 10, 1925, when it was raised to 4%. In the New York district, the rate of 3½%, fixed in June, 1924, was reduced to 3% in August of that year, and in February, 1925, the rate was raised to 3½%. The issues are raised whether, in view of certain data, the Federal Reserve Board was justified in approving the advance of the Boston Federal Reserve Bank rediscount rate to 4% on November 10, 1925; whether the board should have voted to approve a change in the rediscount rate of the Boston Federal Reserve Bank in November, 1926, and, if so, what change should have been approved; and whether the situation as reported in New York in November, 1925, warranted leaving the rate of that district at 3½%.

(1923-1926)

The financial statistics and the industrial statistics divisions of the Boston Federal Reserve Bank are constantly employed in analysis and compilation of data, which are submitted currently to the chief statistician and through him to the Federal Reserve agent. Whenever conditions as evidenced by the data indicate that a change in the rediscount rate might be desirable, the Federal Reserve agent compiles a condensed summary which he presents to the board of directors of the bank. The decision of the board of directors of the Boston Federal Reserve Bank as to any change in the rediscount rate does not become effective until approved by the Federal Reserve Board at Washington.

Coordination between the 12 Federal Reserve banks is secured by the control exercised by the Federal Reserve Board. Although each separate Reserve bank is designated to care for the particular interests of its district, the 12 banks are not of equal importance in the financial structure of the country. Consequently, a change in the rediscount rate of any Reserve bank would be viewed by the Federal Reserve Board in the light of the existing conditions not only in the particular district but also throughout the whole country.

The Federal Reserve Bank of New York is the largest and most important of the Reserve banks, since it operates in the only central money market in the United States. To a very great

EXHIBIT 1

SUMMARY OF BUSINESS, INDUSTRIAL, AND FINANCIAL CONDITIONS FOR OCTOBER, 1926, COMPARED WITH CONDITIONS FOR OTHER YEARS*

	1926	1925†	1923‡
Production	Trend downward for five months	Rising sharply from year's low point	Culminating a two years' major rise
Commodity Prices	Possibly stabilizing at the bottom of a year's decline	Stabilizing at the highest point in five years	Culminating a year's rise
Employment	Satisfactory	Rising	Dangerously high and inefficient
Stock Market	Three weeks down from record high point	Rising sharply above all previous records	Culminating an 18 months' rise
Commercial Loans	Relatively low in New England	Rising sharply	Rising sharply
Collateral Loans	At highest point on record	Rising	Rising
Deposits	High	Stabilized at high point	Stabilized at high point
Strain	Declining in New England Rising elsewhere	Stabilizing at high point	Rising sharply
Money	Up ¼ of 1% in three months	Up ¼ of 1% in three months	Up ¼ of 1% in three months
Discount Rates	One-eighth per cent higher than acceptance rates	Equal to acceptance rates for three months	Equal to acceptance rates for three months
F.R. Earning Assets	Rising sharply	Rising sharply	Declining

*Compiled by Federal Reserve Bank of Boston, Financial Statistics Division.
†Conditions as existing for 4 months prior to raise of November 10, 1925.
‡Conditions as existing for 3 months prior to raise of February 23, 1923.

extent, the purchases and sales of securities and acceptances of the other 11 Reserve banks are made through it and its relationship with them is therefore intimate. In addition, its close contact with the speculative markets of New York makes its rediscount rate sensitive and at the same time effective.

The summary of business, industrial, and financial conditions given in Exhibit 1 is based on numerous statistical series currently compiled by the statistical department of the Boston Federal Reserve Bank. The sources of the data used in these series are shown below:

Production Index: The production index is drawn up by the Federal Reserve Bank of Boston from pertinent data on New England production collected by the district bank and member banks. The Federal Reserve Board compiles a similar index covering the entire United States.

Commodity Price Index: The commodity price index is that computed by the Bureau of Labor Statistics, supplemented by that of Professor Irving Fisher.

Employment Index: The employment index is based on data furnished by the Harvard Economic Service.

Stock Market Index: The stock market index is computed by the district bank by the use of 20 representative industrial stocks.

Commercial Loans: Commercial loans are computed by the bank from data received from member banks.

Collateral Loans: Collateral loans are computed by the bank from data received from member banks.

Deposits: Deposits are computed by the bank from data received from member banks.

"Strain": "Strain" is computed by the district bank and represents the percentage of all loans and discounts in reporting member banks to total deposits of these banks.

Money Index: Money index represents the going market rates of money in New York and Boston.

Discount Rate Index: The discount rate used by the Boston district bank represents the market rate of discounts.

Earning Assets: The earning assets are made up of those assets of the Federal Reserve district bank listed as (1) Loans to member banks; (2) Acceptances bought in the open market; (3) United States Government securities bought in the open market.

1923

When the year 1923 opened, production in the leading industries was almost as high as at the peak of activity in 1920, and it continued to expand at a rapid rate during the early months of the year, accompanied by a sharp increase in commodity prices and in the volume of credit extended by member banks for commercial purposes. Before the end of the first half of the year, both wholesale commodity prices and security prices were falling rapidly, and production and trade followed similar trends. The expansion in the first few months of the year was rapid, as was the subsequent contraction.

Wholesale commodity prices began to decline in April and continued to fall very rapidly in June and July. During the autumn and early winter months commodity prices as a whole became practically stabilized and the volume of production did not decline so rapidly as in the few preceding months. Retail trade continued at about a normal level. Collections were relatively slow.

The trend of bank loans made for commercial purposes responded closely to the needs of business during 1923, increasing continuously from the beginning of the year until October, then declining slightly. Bank loans based on collateral declined from the beginning of the year to the end. With loans expanding throughout the year and with commercial deposits remaining unchanged, it was almost inevitable that money rates should increase. Both the volume of bank loans and the rates on commercial paper did increase until October.

EXHIBIT 2

DISCOUNT RATES—CHANGES DURING 1923, 1924, AND 1925 ON ALL CLASSES AND MATURITIES OF DISCOUNTED BILLS

(*Percentage*)

	Federal Reserve Bank											
	Boston	New York	Philadelphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
In effect Jan. 1, 1923	4	4	4½†	4½	4½	4½	4½	4½	4½	4½	4½	4
Changes effective—												
1923—Feb. 23	4½*	4½	...	...	...	...	...	...	...	...	...	...
Mar. 6	...	...	...	...	...	...	...	...	...	...	...	4½
1924—May 1	...	4	...	...	...	...	...	...	...	...	...	...
June 2	...	...	...	4	...	...	...	...	...	...	...	...
" 10	...	...	...	...	...	...	...	...	...	...	...	4
" 12	3½	3½	...	...	...	...	...	...	...	...	...	...
" 14	...	...	...	...	4	...	4	...	...	...	...	...
" 18	...	...	...	...	...	4	...	...	...	...	...	...
" 19	...	...	3½†	...	...	...	...	4	...	...	...	...
" 26	...	...	3½	...	...	...	...	...	...	...	...	...
July 1	...	...	...	...	...	...	...	...	...	4	...	...
" 16	...	...	...	...	...	...	...	...	...	...	4	...
Aug. 8	...	3	...	...	...	...	...	...	...	...	...	...
" 15	...	...	...	3½	...	...	...	...	...	...	...	...
" 25	...	...	...	...	...	...	...	...	...	...	...	3½
Oct. 15	...	...	...	...	...	...	...	...	4	...	...	...
1925—Feb. 27	...	3½	...	...	...	...	...	...	...	...	...	...
Nov. 10	4	...	...	...	...	...	...	...	...	...	...	...
" 17	...	...	...	4	...	...	...	...	...	...	...	...
" 20	...	...	4	...	...	...	...	...	...	...	...	...
" 23	...	...	...	...	...	...	...	...	...	...	...	...
In effect Dec. 31, 1925	4	3½	4	4	4	4	4	4	4	4	4	4

*5% on 6-9 month agricultural and live-stock paper from April 7, 1923, to June 11, 1924, inclusive.

†5% on 6-9 month agricultural and live-stock paper from April 19, 1923, to June 25, 1924, inclusive; 4½% on 91-day to 6-month agricultural and live-stock paper from June 19 to June 25, 1924.

NOTE: Discount rates were made applicable to 6-9 month agricultural and live-stock paper, which was made eligible by the March 4, 1923, amendment to the Federal Reserve Act, on the following dates in 1923: Boston, April 7; New York, August 6; Philadelphia, April 19; Cleveland, April 9; Richmond, April 7; Atlanta, March 22; Chicago, August 16; St. Louis, April 5; Minneapolis, April 11; Kansas City, April 14; Dallas, April 12; San Francisco, March 21.

The average volume of bankers' acceptances owned by the Boston Federal Reserve bank in 1923 was somewhat larger than in 1922, and therefore relieved the member banks, to some extent, of additional burden. Investments in government securities were much smaller in volume than in the previous two years, the aggregate decreasing steadily to the end of the year.

The volume of Federal Reserve notes in circulation in the Boston district was larger on the average than in 1922 and increased throughout the year until in September it was larger than at any time since the close of 1921. Deposits in the member banks of New England increased throughout 1922 and remained almost stationary in 1923. A similar trend was followed by member banks' deposits in the Federal Reserve Bank of Boston.

Beginning in September, 1922, both commercial paper rates and total loans of member banks in the Boston district rose under the stimulus of the continued increase in business activity. By February, 1923, rates on commercial paper were 4½% in the East. The large increase in loans of member banks and the stiffening of money rates were factors which led the directors of the Boston district bank to raise the rediscount rate to 4½% on February 23, 1923.[1]

The year 1924 is not considered because of the apparent recovery in general business conditions during the latter half of that year. In every Reserve district in 1924 there was a reduction of the rediscount rate from what it had been in 1923, as indicated in Exhibit 2.

1925

Business activity in New England was much greater in 1925 than in 1924, and conditions on the whole were probably better than in any period during the past five years, except possibly in the year 1923, although it would appear that activity was steadier than in that year, not reaching excessive stages in any month or, on the other hand, falling appreciably below the average. While the textile and shoe industries, both important in the New England district, had been going through trying reorganization of selling methods and change of output, even in those lines many concerns had shown increased production and earnings and probably all had experienced improvement in one form or another. Business profits for the most part were fairly good. Efficiency of labor was relatively high and, while there was little unemployment, the aggregate labor turnover was small. Building construction throughout the year was maintained at a much higher level than in 1924, and new contracts awarded were in larger volume at the end than at the beginning of the year.

Retail trade was in such large volume that manufacturing output was readily distributed to consumers, and therefore manufacturers' and

[1] Data taken from *Ninth Annual Report of Federal Reserve Bank of Boston.*

jobbers' inventories of finished material were not built up to a noticeable extent. The retail merchants maintained a relatively small volume of goods on hand, which, coupled with the large volume of sales, resulted in a high rate of turnover. Retail trade was not only good during most of the year, being maintained at about the volume in 1924, but the year ended with an unprecedented holiday trade in December which brought the average above that of 1924.

Installment sales in the department stores in the larger cities increased rapidly in 1925, although the total amount of such sales apparently amounted to less than 5% of total business. The rate of collections in installment accounts improved throughout the year, with the result that at the close of the year only about five months were required in which to collect the average installment account. On the other hand, there is little doubt that the easy terms of payment encouraged the buying of unnecessary goods or of unnecessarily expensive goods. That the payments on installments have thus far been so satisfactory is, no doubt, due to the large purchasing power of the wage earner brought about by the great business activity and, should this activity fall off, the real test of the soundness of installment selling will come.

Wholesale commodity prices duplicated the record of business activity by remaining relatively constant throughout the year. In fact, during the early months they were higher than at any time since the period after the postwar business boom. The relative stability of commodity prices was an important factor in making 1925 a prosperous business year. An interesting phase of the commodity price situation is that, while production was increasing the latter part of the year, commodity prices showed an actual decline.

While agriculture cannot be considered as an outstanding feature of New England industry, nevertheless it is an important factor in certain sections of the district. Crop production, with the conspicuous exception of potatoes, was larger in volume in 1925 than in 1924, though the value of some crops was less, due to lower prices. The potato crop in 1925 was approximately 25% less than in 1924, but because of high prices the total value was over three times as great.

The increase in total deposits of member banks in the New England Federal Reserve District which had been so prominent a feature of the banking situation in 1924 was even more pronounced in 1925, the weekly average deposits being approximately equal to the absolute peak of 1924. Although demand deposits of these banks were higher, more than one-half of the total increase was in time or savings deposits. With the larger volume of production, naturally there was an increase in the average volume of commercial loans, but the greater part of the gain in total resources of member banks was the result of the increase in collateral loans. Investments in securities also were larger. The general improvement in commercial business has been reflected in the business of the member banks, and the year for most member banks has been a profitable one.

. . . .

The average of loans and rediscounts to member banks was $33,000,000 in 1925, as compared with $18,000,000 in 1924, the increase being gradual to the end of the year, about 60% of the borrowings coming from banks outside of Boston. There have been very few instances of member banks having continuous loans with the Reserve Bank throughout the year, banks that have rediscounted usually liquidating their loans and rediscounting again as occasion demanded. In certain of the agricultural districts, owing to the successful outcome of the potato crop, member banks which have had continuous loans for several years with the Federal Reserve Bank have been able to liquidate their indebtedness to the Reserve Bank. From reports received at this bank, it would appear that the general condition of the member banks at the year's end was most satisfactory.

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During the year 1925 there was a steady advance in money rates in the New England market, due in part to the increased demands on the banks for commercial accommodation on account of greater activity in production. Brokers' commercial paper rates, which stood at 3½% at the opening of the year, stiffened to 4½% at the close. Rates for unendorsed 90-day bankers' acceptances rose from 3% to 3½%, and short-time United States Certificates of Indebtedness from 2⅝% to 3½% during the year. Call money ranged in the Boston market from 4% to 6%. The rate on prime bankers' acceptances at the beginning of the year was 3%, gradually increasing to 3½% in September, a rate which continued during the remainder of the year. . . . Early in the summer business activity began to increase and showed a steady increase well towards the end of the year, with a corresponding augmented demand for credit on the Reserve Bank. By September 23 the directors of the Federal Reserve Bank of Boston felt that the situation, so far as New England was concerned, warranted an increase in the discount rate of 4%, which they accordingly voted. Credit conditions elsewhere in other districts, however, evidently did not warrant such an increase at that time, and therefore the Federal Reserve Board did not approve this rate until some time later, the 4% becoming effective November 10, 1925.[2]

In New York at this time the rediscount rate of that district still remained at 3½%. The reasons given for holding it at that figure were summarized in the *Twelfth Annual Report of the Federal Reserve Board,* for the year ending 1925.

The rapid growth in security loans by banks outside of New York City was accompanied by an increase in business activity more than seasonal in character, which resulted in a more rapid advance in the volume of commercial loans than had occurred during this period in either of the two preceding years, and was reflected in an increase

[2] *Eleventh Annual Report of the Federal Reserve Bank of Boston,* for the year ended December 31, 1925.

in the rates for commercial paper in the open market. In view of this rise in money rates and of the growth both in member bank and in Reserve bank credit, particularly outside of New York, a series of advances in discount rates was made in November. On November 10 the rate at the Boston bank was raised from 3½% to 4%, and this was followed by similar advances in the rates at Cleveland, Philadelphia, and San Francisco, so that by the end of the month discount rates at all the Reserve banks, except that of New York, stood at 4%. The rate of the New York bank, however, which had been advanced from 3% to 3½% in February, remained at that level until after the close of the year. In the decision not to advance the rate at the New York bank at the time that the other rate advances were made, the Federal Reserve Bank of New York and the Federal Reserve Board took into consideration the fact that member banks in New York City up to November had shown but little growth in their loans on securities and in their borrowings at the Reserve bank. It was also recognized that the discount rate at the New York bank, because of its close relation to the central market, exercises a larger influence upon prevailing rates for commercial borrowing than do discount rates at other Reserve banks. In the absence of evidence of a speculative attitude among the commercial users of credit, the Reserve System was unwilling, for the purpose of exercising a measure of restraint upon those who were borrowing in order to carry or deal in securities, to raise the discount rate at New York, and thus to exert its influence in the direction of a further increase in the cost of credit to commerce and industry at the time of the seasonal peak in the volume of commercial borrowing and in the demand for credit to finance the marketing and export of agricultural products.

The New York money market, furthermore, is the point of contact with foreign central money markets, and changes in money rates in New York tend to influence the international movement of funds and of gold. In the autumn months, when seasonal trade movements tend to bring about gold imports, there was a net movement of gold to the United States, and, in view of the influence which gold imports have upon the banking situation in this country, the desirability of not adding further to the gold inflow was a factor in the decision not to advance the discount rate at the New York bank in November.[3]

The problems raised by this case are: whether, judging from the summarized data for 1926 given in Exhibit 1, the Federal Reserve Board should have voted to approve a change in the rediscount rate of the Boston Federal Reserve Bank in November, 1926, and, if so, what change should have been approved; whether the board was justified in approving the advance of the Boston Federal Reserve Bank rediscount rate to 4% on Novem-

[3] *Twelfth Annual Report of Federal Reserve Board,* for 1925, p. 6.

ber 10, 1925; and whether the situation as reported in New York in November, 1925, warranted leaving the rate of that district at 3½%.

COMMENTARY:

I

The Federal Reserve Act empowers the Reserve banks "to establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal Reserve Bank for each class of paper, which shall be fixed with a view of accommodating commerce and business."[4]

Thus both the banks and the board, in addition to a consideration of their reserve position, are required to take account of the business situation in making any change of rates. In this connection, it should be kept in mind that the influence of changes in the rediscount rate is felt directly upon the money market, and, aside from their psychological effect, only indirectly upon business. By increasing the cost of Federal Reserve credit, an increase of rediscount rates tends to raise other interest rates, and this change, in turn, by increasing the costs of business, tends to retard activity, and so reacts upon commodity prices. A reduction of rediscount rates tends to have the opposite effect. Moreover, an advance of interest rates has a depressing influence upon security markets, while a reduction has a stimulating tendency. It is needless to say that the result of any specific change depends upon the circumstances at the time the change is made, and the magnitude of its effects will therefore vary decidedly, as the circumstances under which it is made vary. Moreover, a considerable portion of the effect of changes in discount rates lies in the fact that such changes reflect the attitude of the Reserve authorities toward the economic situation, and therefore influence executives in forming business policies.

II

The economic situation in November, 1926, clearly did not justify the Federal Reserve Board's approving a change in the rate of the Boston Bank at that time.

Possible advance of rate. In support of an advance, the best reason which could be urged at that time was that a high stock market, accompanied by a record volume of collateral loans, required restraint. Stock prices, however, had already begun to decline, and this decline would, in all probability, lead to a contraction in the volume of collateral loans, a large portion of which are the outcome of stock-market

[4] Section 14 (d).

transactions. Thus there was a clear prospect that the speculative situation, influenced by the decline of commodity prices and the decrease in manufacturing output, might be relieved soon. Moreover, at this juncture, it would not seem wise to attempt to exercise restraint on the stock market by a higher rediscount rate, which would probably produce a disturbing effect upon commodity markets and business.

The business situation, indeed, was such as to preclude an advance in the rediscount rate unless conditions in security markets were much more dangerous than at that time. Thus, commodity prices were "possibly stabilizing" after a year's decline, and an advance of the rediscount rate, by prolonging or accelerating the downward movement, might have had a seriously adverse effect. Manufacturing production had already been curtailed; and further curtailment, with a resulting increase in unemployment, might reasonably be expected should the rediscount rate be raised, and might even occur though no action were taken.

Furthermore, there was nothing in the banking situation which required a contraction of commercial credit. Commercial loans were relatively low in New England, and the amount of strain on banking resources was declining. The expansion in the volume of earning assets of the Reserve bank is to be regarded as a normal development during the period of the autumn increase in demands for commercial credit.

Money rates, it is true, had been increasing for three months. But the three months, August, September, and October, are months when interest rates, influenced by the usual autumn expansion in trade, normally advance; and a rise of ½ of 1% during these months probably represents only a normal response to such seasonal influences. It is noteworthy, moreover, that acceptance rates, though they had advanced, were still ⅛ of 1% below the 4% rate of the Boston bank. When the advance in the Boston rate to 4% was made in November, 1925, acceptance rates had been at the level of the rediscount rate (3½%) for three months, so that the rediscount rate could be then regarded as an important influence toward restraining increases of open-market rates. In 1926, on the other hand, the market had not risen to the height of the rediscount rate. It was, however, distinctly higher (⅜% for acceptances) than a year earlier, so that money, although still easy, was not so decided a stimulant to speculation and business expansion. From the viewpoint of the money market, therefore, there was much less reason for an advance in 1926 than in 1925.

Possible lowering of the rediscount rate. Lowering of the rediscount rate by the Boston bank at this time would produce the anomaly of a lower rate at Boston than at New York—a situation which obviously could not exist for any length of time without causing an unhealthy

demand for Boston funds.[5] Of weight against a reduction, moreover, was the possibility that it would furnish an unhealthy stimulus to security markets and lead to renewed expansion of collateral loans.

Furthermore, when the business situation alone is considered, in relation to the money market, there does not appear to be adequate reason for a reduction in the face of the difficulties just referred to. Interest rates, even at the peak of the autumn demand, were moderate, and seasonal easing was to be anticipated, at least after the turn of the year. Under such circumstances, it was clearly doubtful whether any pronounced effect would result from a reduction, while the lower level might later prove embarrassing, if recovery was prompt. Certainly the level of rates was such as to present no obstacle to business improvement, and the commodity price situation was at the time reassuring. Business was sufficiently active, and interest rates sufficiently low, to make a reduction of dubious value as a stimulant to business recovery.

III

In November, 1925, economic conditions justified the approval of the increase of the rediscount rate at Boston from 3½% to 4%. Outside money rates were still at low levels, although business had become very active. In the case of acceptance rates, there had been no advance for three months, despite the increasing volume of business. Such rates had risen to the level of the rediscount rate early in the usual period of the autumn demand for commercial funds, and their failure to rise above 3½% was probably in large part due to the maintenance of the rediscount rate at that figure. For money rates generally, indeed, the prevailing level appeared to be out of adjustment with prevailing business activity. Certainly a 4% rate in Boston is not to be regarded as high under the circumstances then existing.

Maintenance of the 3½% rate at this time was therefore an influence toward easy money, and was thus stimulating to security markets and business. In the case of security markets, some measure of restraint was clearly desirable at this time, and business was sufficiently active to warrant a higher rate. Stock prices had been rising rapidly above all previous levels, and business, as indicated by rising production and employment, was expanding. Both collateral and commercial loans (the latter partly as a result of the higher commodity prices) were increasing, and greater use of Reserve credit was being made, as indicated by the growth of earning assets of the Boston bank.

On the other hand, the reasons for believing that advance of the rate at that time would not have a seriously adverse effect upon busi-

[5] It should be noted, however, that in the summer of 1927 the Kansas City Reserve Bank lowered its rate from 4% to 3½% on July 29, one week in advance of similar action by the New York Bank.

ness seem conclusive. Such a rate did not represent a stringent money situation, such as would be an obstacle to active business. Business was, on the whole, being conducted in a conservative fashion, and was therefore not likely to be greatly disturbed if such action were taken. "Retail trade was in such large volume that manufacturing output was readily distributed to consumers, and therefore manufacturers' and jobbers' inventories of finished material were not built up to a noticeable extent." Moreover, the Boston money market is of decidedly less importance nationally than the New York market, and an advance in the former would have a much smaller adverse influence, particularly from the psychological viewpoint, than in the latter.

IV

That the situation in the autumn of 1925 demanded some action by the Reserve banks appears from the reasons advanced for the increases by four other regional banks (Boston, Cleveland, Philadelphia, and San Francisco) in November, 1925. In view of these increases, however, and the situation existing relative to gold movements (discussed in a later paragraph) the New York bank was probably justified in maintaining the 3½% rate until the end of the year. In the absence of an increase at New York, the action of the other banks is to be regarded as exercising only a mild restraining influence, while postponement of action by the New York bank tended to soften its effect. There were at New York no purely banking reasons for an advance, and the conservatism with which business was being conducted (except in Florida, where a land boom was under way[6]) has some weight as a reason for not disturbing the situation, although it may be urged for the same reason that no marked untoward effects would follow.

Two considerations which are advanced by the Reserve Board, however, deserve comment. The first of them relates to the failure of loans on securities by the New York banks to show any marked advance. In relation to the conditions of these banks, this fact is, of course, to be taken into consideration; but in respect to the security markets, it is to be remembered that a large portion of the security loans by banks outside New York City are actually made on the New York market through the agency of the New York banks. Thus the expansion of loans for the purpose of stock exchange transactions is not to be judged on the basis of the New York figures alone. Secondly, the board advances as a reason for maintaining the rate that it did not wish to exert its influence to raise the cost of credit at a time when commercial borrowing was at its seasonal peak. But the fact

[6] Discussed at some length by Professor H. B. Vanderblue, in the *Journal of Land & Public Utility Economics*, May and August, 1927.

that commercial loans had already reached such a peak indicates that the great bulk of this autumn domestic trade had already been financed, since loans ordinarily run for a period of some months. Thus the cost of the fall financing was already pretty much determined, for the cost of loans already placed would obviously not be affected by an advance in the rediscount rate. For foreign trade, the seasonal peak is somewhat later; but obviously only such part of the financing as was done after the advance had been made would be affected. On the other hand, the effect of an advance in the rediscount rate upon market rates would undoubtedly be greater during the peak of the autumn demand than during a period of slack in the money market, such as usually follows the turn of the year. It was at such a time (January 9, 1926) that the advance was actually made.

Regarding the effect of an advance on gold movements, the board states that it did not wish to add further to gold imports (a probable result at the autumn season, when the volume of payments due this country is large, because of exports of such commodities as cotton and wheat), in view of "the influence which gold imports have upon the banking situation in this country." In other words, it did not desire by the advance of the rate to attract more gold, and hence add to the reserves in this country—a development which would furnish the basis of credit expansion and act to ease the money market. This is a valid reason for postponing action until seasonal payments to the United States were less heavy, and the likelihood of its affecting gold movements was therefore less. But it is to be doubted whether a seriously stimulating effect would have been felt at once should additional gold have been attracted, since the higher rate would have itself acted to keep market rates up.

A much stronger reason for not wishing to attract gold imports at this juncture is not advanced by the board—namely, the adverse effect which losses of gold would have upon European countries, particularly Great Britain.[7] In Great Britain the gold (bullion) standard had been

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[7] On this point, a statement appearing in the *Annual Report of the Secretary of the Treasury*, 1927, (pp. 72, 73) is of interest. After pointing out that the stock of gold in the United States was smaller on October 31, 1927, than on the corresponding date in 1924, the report continues: "For this result a reserve policy is at least in part responsible, not simply through specific operations designed to deal with gold movements, but principally by the pursuance of a larger plan, which has had as its objective the restoration of the gold standard throughout the world and which has found expression in the granting of credits to a number of the European banks of issue, and *in a discount and open-market policy which as far as possible has avoided a rate position which would attract gold to this country and would put a strain on the European money markets.* It is indeed fortunate in this disturbed period in monetary affairs, when so large responsibilities for world stability have been placed upon this country, that we have had in the Federal reserve system an agency capable not only of exercising an important influence toward

established in the spring of 1925, and in the autumn sterling exchange had declined sufficiently to lead to a movement of gold to this country. An increase in the rate at New York would have operated to increase this outflow, and would have made more difficult the task of maintaining the gold standard. Thus, an advance in the rate at New York would have had a depressing effect upon conditions in Great Britain, which would, in turn, have reacted adversely upon business in this country. The clear prospect of such developments seems to form a more adequate justification of the maintenance of the 3½% rediscount rate at New York than consideration of the effects of enlarged gold imports upon this country. From either point of view, the policy actually followed—postponement of an increase until early in 1926, when seasonal easing would normally be under way in both the London and New York markets—tended to moderate the adverse effects of the increase of the rediscount rate at New York.

December, 1927 J. B. H.

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stability in our own money markets, but also of aiding in financial reconstruction abroad. For financial stability abroad is almost as important to the American farmer or business man as stability in our own money market."

Eastland National Bank[1]

COMMERCIAL BANK

Bank Credit—*Extending Increased Line of Credit to Wool Firm.* In anticipation of an increase in sales, a company merchandising foreign and domestic wool and having capital and surplus of about $110,000, asked its only bank creditor, which had extended it a line of credit of $200,000 since its incorporation three years previously, to increase the line of credit to $240,000. The bank, after studying the company's financial condition and the probable developments in the wool trade as shown by the seasonal fluctuations in the sales of a competing wool firm and by statistics of wool prices and stocks, granted the request but obtained another bank to share the account.

(1924)

The Eastland National Bank of Boston had extended a $200,000 line of credit to the Moreland Company[1] when it was incorporated in 1921 to merchandise foreign and domestic wools. On September 1, 1924, the company asked the Eastland National Bank, which was its only bank creditor, for an extension of its line to $240,000, to finance an expected increase in sales.

The Moreland Company had been incorporated with capital of $101,000 which five stockholders, who were likewise directors, had invested in the company. The stockholders had received $101,000 of 7% preferred stock, and 16 shares each of no-par-value common stock. Three of the directors became officers of the company. For ten years two of them had been successful partners. They had dissolved the partnership, however, and with the other stockholders had formed the Moreland Company to continue the business. The third officer was an able accountant who was familiar with the wool industry. The treasurer of a prosperous spinning mill and a vice-president of the Eastland National Bank also were directors. They were not officers of the company, but they had an intimate knowledge of its affairs.

The dissolved partnership had been a satisfactory customer of the Eastland National Bank. The vice-president of the bank who was a director and stockholder of the Moreland Company was convinced of the integrity of the other directors, and he believed

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[1] Fictitious name.

that they possessed more than average business ability. The officers of the Eastland National Bank had complete confidence in the judgment of the vice-president.

At the time the Moreland Company was organized, the Eastland National Bank had extended a larger line of credit to the company than it would have extended if its vice-president had not possessed intimate knowledge of the company. Each of the three officers of the Moreland Company carried $40,000 in life insurance payable to the company, although the bank had not required them to do so. A majority of firms of wool merchants were organized as partnerships. This form of organization was advantageous to the creditors of a firm whose partners had other capital than that invested in the firm. Since the Moreland Company was incorporated, the bank technically could not include in its security the resources of the stockholders, other than those invested in the company, although instances were known where stockholders of a company merchandising wool had paid deficits out of their personal resources in order to protect the credit of the company. The bank's executives stated that occasionally, in exceptional instances, the borrowings of a company merchandising wool had amounted to three times its invested capital, but that under these circumstances the company generally had hypothecated its inventory and receivables. Banks usually required a 15% margin on warehouse receipts against wool. The Eastland National Bank never had sustained a loss on a loan to wool merchants, and the officers knew of only one large company merchandising wool whose failure had resulted in losses to banks.

In the fall of 1922 the director of the Moreland Company who also was the treasurer of a woolen spinning mill had established a mill of his own. This mill had been successful in 1923 and had run steadily through the year on three labor shifts of three hours each. The profits of this mill for the first year had been 50% on the capital invested. In January, 1924, the new spinning company had needed additional capital, and the founder of the company had asked the Moreland Company to purchase at par $20,000 of the treasury stock of the new spinning company. This spinning mill had become one of the largest customers of the Moreland Company. The executives of the Moreland Company had submitted the matter to the officers of the Eastland National

Exhibit 1

Monthly Balance Sheet of Moreland Company, as of Last Day of Month, 1922

	January	February	March	April	May	June	July	August	September	October	November	December*
Assets												
Cash	$ 29,600	$ 36,000	$ 17,600	$ 42,400	$ 7,200	$ 19,200	$ 7,200	$ 4,800	$ 4,000	$ 800	$ 4,800	
Accounts Receivable and Trade Acceptances	156,000	110,400	70,400	112,000	119,200	84,000	95,200	108,000	200,000	276,000	189,600	
Wool	108,800	85,600	100,800	108,800	98,400	110,400	129,600	149,600	204,000	182,400	212,000	
Equipment	6,400	6,400	6,400	5,600	5,600	6,400	6,400	5,600	5,600	5,600	5,600	
Prepaid Items	1,600	800	1,600	2,400	800	1,600	2,400	2,400	3,200	4,000	3,200	
Total Assets	$302,400	$239,200	$196,800	$271,200	$231,200	$221,600	$240,800	$270,400	$416,800	$468,800	$415,200	
Liabilities												
Notes Payable	$120,000	$ 84,000	$ 76,000	$104,000	$ 40,000	$ 40,000	$ 60,000	$ 60,000	$160,000	$200,000	$140,000	
Accounts Payable	80,000	41,600	4,800	44,800	53,600	48,000	45,600	73,600	115,200	94,400	122,400	
Stockholders' and Officers' Loans	......	......	......	......	......	......	......	......	......	20,000	......	
Capital and Surplus	102,400	113,600	116,000	122,400	137,600	133,600	135,200	136,800	141,600	154,400	152,800	
Total Liabilities	$302,400	$239,200	$196,800	$271,200	$231,200	$221,600	$240,800	$270,400	$416,800	$468,800	$415,200	
Contingent Liability on Trade Acceptances Discounted	......	......	......	......	......	......	......	......	......	......	......	
Current Ratio	1.5	1.8	2.3	1.8	2.4	2.4	2.2	2.0	1.5	1.6	1.5	
Net Worth	$102,400	$113,600	$ 116,00	$122,400	$137,600	$133,600	$135,200	$136,800	$141,600	$154,400	$152,800	
Sales for Month	$280,000	$164,000	$ 74,400	$132,800	$307,200	$ 87,200	$ 80,800	$103,200	$196,000	$224,000	$172,800	

*No report.

Exhibit 2

Monthly Balance Sheet of Moreland Company, as of Last Day of Month, 1923

	January	February	March	April	May	June	July	August	September	October	November	December*
Assets												
Cash	$ 38,400	$ 56,800	$ 63,200	$ 20,800	$ 16,800	$ 26,400	$ 28,000	$ 28,000	$ 22,400	$ 20,000	$ 19,200	
Accounts Receivable and Trade Acceptances	213,600	176,800	131,200	172,000	172,000	144,000	112,800	68,000	51,200	65,600	117,600	
Wool	192,800	189,600	182,400	153,600	179,200	180,000	165,600	180,800	185,600	182,400	160,800	
Equipment	6,400	4,800	4,000	4,800	4,800	4,800	4,800	4,000	4,800	4,800	6,400	
Prepaid Items	3,200	2,400	1,600	2,400	2,400	1,600	2,400	2,400	1,600	2,400	2,400	
Total Assets	$454,400	$430,400	$382,400	$353,600	$375,200	$356,800	$313,600	$283,200	$265,600	$275,200	$306,400	
Liabilities												
Notes Payable	$160,000	$160,000	$160,000	$140,000	$160,000	$160,000	$140,000	$116,000	$128,000	$140,000	$148,000	
Accounts Payable	137,600	106,400	66,400	63,200	61,600	44,000	24,800	46,400	23,200	28,000	48,800	
Stockholders' and Officers' Loans	....	28,000	28,000	28,000	28,000	28,000	28,000	4,000	4,000	4,000	4,000	
Capital and Surplus	156,800	136,000	128,000	122,400	125,600	124,800	120,800	116,800	110,400	103,200	105,600	
Total Liabilities	$454,400	$430,400	$382,400	$353,600	$375,200	$356,800	$313,600	$283,200	$265,600	$275,200	$306,400	
Contingent Liability on Trade Acceptances Discounted	......	52,800	42,400	5,600	......	12,000	9,600	....	......	......	......	
Current Ratio	1.5	1.6	1.7	1.7	1.7	1.7	1.9	1.7	1.7	1.6	1.5	
Net Worth	$156,800	$136,000	$128,000	$122,400	$125,600	$124,800	$120,800	$116,800	$110,400	$103,200	$105,600	
Sales for Month	$127,200	$160,800	$ 85,600	$ 95,200	$109,600	$ 58,400	$ 52,000	$ 55,200	$ 28,000	$ 55,200	$117,600	

*No report.

Exhibit 3

Monthly Balance Sheet of Moreland Company, as of Last Day of Month, March Through July, 1924

	January*	February*	March	April	May	June	July	August
Assets								
Cash			$ 26,400	$ 25,600	$ 27,200	$ 14,400	$ 32,800	
Accounts Receivable and Trade Acceptances			124,800	81,600	84,800	75,200	101,600	
Wool			107,200	110,400	105,600	133,600	160,800	
Equipment			5,600	5,600	5,600	5,600	6,400	
Prepaid Items			1,600	1,600	1,600	1,600	2,400	
Spinning Company Stock			20,000	20,000	20,000	20,000	20,000	
Total Assets			$285,600	$244,800	$244,800	$250,400	$324,000	
Liabilities								
Notes Payable			$144,000	$124,000	$124,000	$104,000	$160,000	$200,000
Accounts Payable			34,400	14,400	16,800	42,400	55,200	
Stockholders' and Officers' Loans			......	......	......	......	......	
Capital and Surplus			107,200	106,400	104,000	104,000	108,800	
Total Liabilities			$285,600	$244,800	$244,800	$250,400	$324,000	
Contingent Liability on Trade Acceptances Discounted			......	......	......	......	......	
Current Ratio			1.4	1.6	1.5	1.5	1.4	
Net Worth			$107,200	$106,400	$104,000	$104,000	$108,800	
Sales for Month			$ 86,400	$ 48,800	$ 45,600	$ 48,000	$156,800	$200,000†

*No report. †Estimated.

Bank, who had decided that this purchase would be advisable although it would reduce the liquidity of the Moreland Company's assets.

The Moreland Company's balance sheets on a monthly basis for 1922, for 1923, and for 1924 through July were as shown in Exhibits 1, 2, and 3.

The Eastland National Bank stated that the earnings of firms merchandising wool fluctuated sharply. The year 1922 had been successful for the Moreland Company. It had paid dividends totaling approximately $4,000 on the preferred stock on June 30, 1922, and dividends of $3,392 on June 30, 1923. The next year the company passed dividends on the preferred stock because it had not earned them. The company never had declared dividends on the common stock. In 1923 and the first half of 1924, most of the Eastland National Bank's customers who merchandised wool had lost money. During July and August of 1924, however, sales and profits had increased markedly. As a result of this general business activity, the bank expected that during the fall of that year conditions in the wool trade would be much more prosperous than they had been for some time.

The average expense of conducting the business of the Moreland Company was 5% of net sales. If the price of wool did not vary between the times of purchase and of sale, the company could realize only a narrow margin of profit. The Moreland Company did not speculate heavily in wool, but it was impossible to avoid all speculation because even a small change in the price of wool between the times of purchase and of sale caused either losses or substantial profits. The Moreland Company, in common with other wool merchandising firms, also underwent seasonal fluctuations in sales. The range of this fluctuation in the Moreland Company's sales was difficult to determine because of the brief existence of the company. The bank had, however, the monthly sales records since 1917 of another wool firm which purchased similar grades of wool and sold it to the same types of customers. The seasonal fluctuation in sales of this company for seven years as computed by the bank was as shown in Exhibit 4.

The Eastland National Bank estimated that the Moreland Company made 90% of its sales to woolen mills and 10% to worsted mills. The company sold various grades and kinds of

Exhibit 4

Monthly Sales, in Percentages, of a Competitor of the Moreland Company, Based on Averages for Seven Years, 1917 Through 1923

January	160%	July	71%
February	117	August	79
March	103	September	76
April	86	October	80
May	124	November	100
June	80	December	17

domestic and foreign wools. Approximately 65% of its sales during the 2½ years of its existence had been of domestic wools. In 1924 the company had not purchased much foreign wool because the prices of that wool had been higher than those of domestic wool. Although the grades and kinds of wool varied, the officers of the bank believed that the price for Ohio scoured fleece half-blood wool was representative of the average price of the wool inventory of the Moreland Company. Exhibit 5 shows statistics that the Eastland National Bank compiled pertaining to wool prices and stocks and the activity of manufacturers of woolen cloth.

The Moreland Company paid for its purchases of domestic wool on terms of 10 days net from date of purchase. The company made foreign purchases on letters of credit obtained from the Eastland National Bank. The Moreland Company included in its inventory foreign wools purchased but not received, and in its notes payable it included its letter of credit liabilities outstanding against any foreign wool. All inventory, whether in transit or in warehouse, was covered fully by insurance. The company did not speculate in foreign exchange, but purchased it simultaneously with the wool for which it was to pay.

The Moreland Company made a few sales to other wool merchants, but it sold most of its wool to about 25 woolen and worsted mills. Three mills, however, bought 50% of the company's merchandise. The company's terms were 60 days net. Although payments seldom were overdue, most customers did not make payment before the end of the time limit. The Moreland Company carried no credit insurance, but the bank had kept a close check on the three largest customers of the company and was satisfied that they were financially strong. In 1922, when one

Exhibit 5

Statistics of Wool Prices and Stocks and of Woolen Manufacturers' Activity, 1920-1924

	Woolen Spindles Active (Percentage of total woolen spindles)	Consumption in Grease Equivalent* (*Million pounds*)	Stocks in Grease Equivalent* Held by Manufacturers (*Million pounds*)	Stocks in Grease Equivalent* Held by Dealers (*Million pounds*)	Price of Wool Ohio Scoured Fleece Half Blood (*Per pound*)
1920					
January					$1.91
February					1.95
March					1.95
April					1.95
May	89%	57			1.91
June	77	46			1.63
July	61	37			1.52
August	54	37			1.41
September	55	35			1.26
October	57	38			1.13
November	57	27			1.08
December	48	24			.91
1921					
January	41	30			.91
February	41	36			.91
March	53	47			.80
April	68	53			.76
May	76	57			.71
June	79	58	242	288	.71
July	80	53			.71
August	79	58			.69
September	78	62	252	252	.69
October	78	68			.69
November	80	66			.71
December	78	64			.78
1922					
January	73	52			.82
February	80	53			.87
March	84	60			.97
April	83	42			.97
May	86	52			.97
June	86	52	277	201	.97
July	84	46			1.13
August	83	57			1.10
September	85	54	293	231	1.13
October	84	59			1.15
November	84	63			1.17
December	85	58	302	216	1.17
1923					
January	85	63			1.19
February	87	57			1.19
March	90	62	288	213	1.19
April	90	56			1.24
May	90	59			1.28
June	87	52	263	268	1.25
July	86	46			1.19
August	84	48			1.12
September	83	46	223	250	1.07
October	84	51			1.05
November	82	50			1.05
December	81	45	214	201	1.09
1924					
January	81	53			1.12
February	82	50			1.16
March	84	47	213	158	1.16
April	82	44			1.11
May	79	36			1.08
June	78	30	211	202	1.03
July	72	34			1.16

*That is, the equivalent in unwashed wool.

of the company's customers temporarily had become financially weak, it had given the Moreland Company 60-day trade acceptances, which the company discounted. They were paid when due. Except in this instance, the Moreland Company had not used trade acceptances; they were not common in the wool trade, and manufacturers did not approve of them. In 1922 the company's rate of stock-turn had been rapid, but in 1923 and 1924, because of declining sales, the rate had decreased.

When the Eastland National Bank had extended a $200,000 line of credit to the Moreland Company in 1921, it had done so on consideration that the company maintain an average balance of 20% and that the company's investment in inventory should not exceed $120,000 without satisfactory explanation. The Moreland Company's investment in inventory usually had been larger than this amount, but the bank had not objected, because the company had included in its inventory wool which it had sold even if it had not yet received the merchandise. Because the bank was in effect furnishing permanent capital, its officials believed that it was justified in obtaining a higher rate of interest on the account than that usually obtained from wool merchants. In 1922 and 1923 the Moreland Company had obtained from its officers emergency loans of short duration at the rate of interest which the bank charged the company. The rate charged the Moreland Company on September 1, 1924, was 5%, although the average rate to wool merchants was 4¼%. Most wool firms had a larger capital in proportion to sales than did the Moreland Company, and made it a practice to pay off bank loans once a year. Because of the liquidity of the company's assets, the bank had not required the company to maintain a two to one current ratio.

The officers of the Eastland National Bank agreed that the Moreland Company was justified in its request for an extension of its line of credit to $240,000 to finance expected increased sales. The executives of the bank decided to invite another bank to share the account, each bank to extend a loan of $120,000. The Eastland National Bank found an acceptable bank to enter into this arrangement.

COMMENTARY: Although the Moreland Company stated that the increase in its line of credit was needed to finance increased sales, it was more than probable that the requested loan was desired also for addi-

tional purposes. After a year of declining wool prices and reduced operation by woolen mills, the outlook for the next few months was for greater activity and a firmer wool market. This possibility, coupled with the seasonal increase in sales, suggested that the company might have been interested in speculative purchases. Inventory turnover had declined from an average of once a month in 1922 to about once in two months in 1924, while accounts receivable had been turning about once in 45 days instead of once a month.

An analysis of the balance sheets indicates that during the period for which figures were available there was a gradual decline of net quick assets due to operating losses in 1923 and the investment of capital outside the business. While the purchase of stock in a new spinning mill tended to assure the Moreland Company of the goodwill of a large wool user, the capital of the business should not have been diverted to a purpose so entirely apart from the merchandising of wool. In view of the fact that the net worth had shown a marked decline, this investment outside the business was a serious factor.

It was not the purpose of the bank to supply permanent capital but only temporary funds for employment in specific transactions from the proceeds of which the loan would be repaid. The company had failed to maintain adequate balances, moreover, and it was an open question whether it had not attempted to take advantage of the close relationship with the bank's vice-president to obtain more than its normal share of credit.

The bank itself was convinced that it was highly desirable that the company arrange to obtain half the line from another bank. Since the proposed line of credit of $240,000 was not too large an amount for the Eastland National Bank to grant, it was apparent that this line of another bank was desired as a check on the recommendations of the credit department. In a case where the bank itself had some misgivings it should not have avoided the issue by getting the company to induce another bank to share the risk. The additional line of credit should not have been granted, and the bank should have insisted that the Moreland Company maintain adequate balances and make arrangements for the reduction of the loans outstanding.

January, 1928 C. E. F.

Silk Association of America v. Pennsylvania Railway Company[1]

TRADE ASSOCIATION—SILK

Railroad Rates—*Request for Lower Rating in Official Classification Refused.* The complainant, a trade association in the silk industry, asked that, regardless of value, the rating in the official classification of raw silk on wooden spools, bobbins, or warp beams, in less-than-carload lots, be made second class, and that the rating of all other raw silk be made first class. The Interstate Commerce Commission decided, however, that the existing rating of first class on less-than-carload shipments of silk waste and of raw silk of a value not in excess of $1 a pound, and one and a half times first class on raw silk in excess of that value, whether on spools, bobbins, and so on, or not, was neither unreasonable nor unjustly discriminatory, in view of the value of the commodity.[2]

(1917)

Meyer, *Commissioner:*

Raw silk may consist of the silk thread as imported; the thrown silk, which is several threads combined by what is known as the process of throwing; or spun silk, sufficiently described by its name. There is a small amount of artificial raw silk, which is not differentiated from other raw silk. Silk waste consists of fiber from the cocoon from which silk is taken which cannot be reeled, fiber left in the process of manufacturing spun silk and which is called noils, or cocoon remnants and punctured or pierced cocoons. Complainant, a corporation organized not for profit but for the protection of the interests of its 300 members, asks in this proceeding that, regardless of value, the rating in the official classification of raw silk on wooden spools, bobbins, or warp beams, and waste silk in bags, bales, or boxes, less than carload, be made second class; and of other raw silk, first class. The present ratings assailed as unjust and unreasonable and unjustly discriminatory and prejudicial are first class on silk waste and on raw silk of a value not in excess of $1 a pound and one and a half times first class on raw silk in excess of that value. As all raw silk, except a negligible quantity called Tussah silk, is worth more than $1 a pound, the practical effect of the present classification is a rating of one and a half times first class on raw silk throughout the official classification territory. Prior to 1903 raw silk was not rated in official classification but was accepted for transportation by special agreements only. In that year raw silk and waste silk were accorded a rating of first class when released to a value of $1 a pound, and three times first class when not so released.

[1] 44 I.C.C. 578 (May 5, 1917).

[2] Headnote by Graduate School of Business Administration.

Upon the passage of the first Cummins amendment the present tariff rating on raw silk was filed to become effective June 2, 1915. The rating on silk waste has not been changed since 1903.

Under the tariffs prior to June 2, 1915, shippers of raw silk could pay the first-class rate at the released value and obtain insurance for the full value at a cost not in excess of 10% of that rate. The present rating results in an increased rate, the burden of proof to justify which is on the carriers. No increase has been made in the ratings on silk waste since January 1, 1910.

The average value of raw silk is $3.84 a pound. The value per shipping pound of the different kinds of raw silk and silk waste is as follows:

Commodity	Raw Silk	Thrown Silk	Spun Silk	Waste		Noils	Thrown Silk on Spools	Spun Silk on Spools
				Asiatic	European			
Density of weight per cubic foot, pounds	22	15	28	30	9	8	20	20
Value per gross shipping pound	$3.20	$3.75	$2.30	$0.65	$0.60	$0.28	$2.00	$1.25

The "shipping pound" includes the weight of the package in which the silk is shipped; and, when used, the spool, bobbin, warp beam, or cone on which it is wound.

Raw silk is transported from importer to throwster, thence to the dyer, and back to the importer, so that the carriers obtain three, sometimes more, hauls of the same commodity. However, much of this transportation is by express, on which shipments the carriers receive from the express companies more than when shipments are made by freight. Shipments are made in well-packed bales weighing from 108 to 240 pounds, the average shipment of the raw article being from 10 to 15 bales, and of thrown silk 1 to 2 bales.

The concentration of value in shipments of raw silk and silk waste makes such shipments hazardous to the carrier. This is illustrated by an exhibit of record showing one shipment of 20 bales of a value of $11,136, 22 shipments consisting of 139 bales valued at $77,510.40, and 24 shipments of 147 bales valued at $84,940.80. One wreck cost a carrier in payments for loss of these commodities $10,680.70, as much as its revenues from the traffic thereon for two years. The loss and damage claims paid, taking all the shipments on which the record shows such payments, are, however, not in excess of 1% of the revenue paid thereon and are less than the percentage of loss and damage payments to revenue received from all commodities. Insurance against all loss could be obtained at a cost amounting to from 5% to 10% of the first-class rate, but the insurer reserves the right of subrogation against the carrier in case of loss.

The increase of 50% in the rating on raw silk cannot be justified and is not sought to be justified solely because of the increased hazard resulting from the full liability required by the first Cummins amend-

ment. The increase in the hazard is not the only fact to be considered in prescribing rates for the transportation of highly valued commodities. The Supreme Court in *N. P. Ry.* v. *North Dakota,* 236 U.S., 585, 599, in giving some of the many factors which should be considered in making rates, names "the risk assumed" and also "the value of the service." This commission has throughout its history given consideration to the value of a commodity when determining what is a reasonable rate thereon.

Illustrative of the value of service is the percentage that the rate paid bears to the value of the article. This percentage on raw silk is less than 0.15 of 1%, while such percentages on other articles of necessity and daily use are much higher. Below is a table introduced in evidence by the chairman of the official classification showing such percentages:

Butter	0.9%	Beans	4.8%
Clover seed	1.2	Potatoes	14.8
Cotton	1.6	Sweet potatoes	5.0
Eggs	1.3	Oats	6.0
Apples	13.6	Barley and rye	7.3
Corn	9.2	Hay	15.8
Average for all grains	7.7	Cattle and hogs	2.5
Live poultry	4.5	Wood	0.6

Silk is one of the commodities of the highest value in proportion to the ratio which the charges bear to the value of the commodity.

Because of the "less value per shipping pound" of the commodity when shipped on spools, bobbins, and so forth, complainant contends that there should be lower rates on such shipments. This contention is based on the one element of ratio of value to density and disregards the value of the service. Such an extreme differentiation is not practicable, especially on a commodity like spun or thrown silk when shipped in less-than-carload quantities. Some such silk is wound on cones or paper coils, as to which no relief is asked. To make the rates on silk wound on spools and bobbins different from the rates on silk wound on cones and paper coils would lead to an impracticable multiplication of rates. While in the general description of dry goods, classified first class in less-than-carload shipments, there are included some commodities like velvet of a value somewhat similar to that of silk, no unjust discrimination or undue preference results. The dry goods list must be considered as a whole and this record presents no justification for including raw silk in that classification.

From all the facts of record we find and conclude that the rates assailed are neither unreasonable nor unjustly discriminatory, and the complaint will be dismissed.[3]

[3] For commentary, see page 63.

Globe-Wernicke Company *v.* B. & O. Railway Company[1]

MANUFACTURER—OFFICE FURNITURE

Railroad Rates—*Request for Lower Rating in Official Classification Refused.* The complainant, a company manufacturing office furniture, shipped sectional bookcases, with each section packed in a box of double-faced corrugated strawboard of a single thickness. The company asked that the rating in the official classification of one and one-half times first class on these bookcases, so packed, in less-than-carload shipments, be lowered to first class, which was the rating on such merchandise in the other principal classifications. The Interstate Commerce Commission decided, however, that the existing rating was not unreasonable or unduly prejudicial to complainant.[2]

(1914)

Clements, *Commissioner:*

The complainant is a corporation engaged in the manufacture and sale of office furniture and supplies, with plant and principal office at Norwood, Ohio, a point on the Baltimore & Ohio Southwestern Railroad 10 miles from Cincinnati, Ohio. Among other articles it ships sectional bookcases, each section being packed in a box of double-faced corrugated strawboard of single thickness. By complaint it challenges the reasonableness of the rating in the official classification of one and one-half times first class on these bookcases, so packed, alleging that the resulting charges are unreasonable and subject complainant to undue prejudice and disadvantage. It asks for the establishment of a rating of first class.

Except those for export which are packed in large wooden boxes lined with waterproof paper, all of the sectional bookcases shipped by the complainant are packed in the manner described, and their average weight is slightly more than 7 pounds per cubic foot. Complainant prepays the freight in practically every case and sells at uniform prices at all points east of Montana, Wyoming, Colorado, and New Mexico. The testimony does not indicate that the method of packing described has been adopted generally, it appearing, in fact, that sectional bookcases are shipped both knocked down flat and in tiers, crated or boxed.

The classification ratings hereinafter referred to are those applicable on less than carloads. In the official classification, bookcases, including those of the sectional variety, and bookcases and desks combined, wrapped, crated, or boxed, are rated one and one-half times first class.

[1] 31 I.C.C. 274 (July 10, 1914).

[2] Headnote by Graduate School of Business Administration.

In the southern and western classifications, sectional bookcases, when boxed, are given a rating of first class, but take the regular bookcase rating of one and one-half times first class when shipped otherwise than in boxes. In all three classifications, sectional bookcases, knocked down flat, are rated second class. First-class ratings have been established on sectional bookcases, boxed, in the Illinois, Texas, and Canadian classifications.

In *Globe-Wernicke Co.* v. *B. & O. S. W. R. R.*, 11 I.C.C., 156, 164, the commission considered the reasonableness of the rating here complained of, and its conclusions were as follows:

> The foregoing facts indicate that complainant's request for first-class rating of sectional bookcases should be fairly considered by the carriers in official classification territory. This kind of bookcase has been voluntarily placed in the first class by both the Southern and Western Classification Committees, and there is much reason to believe that it might properly receive the same treatment by the Official Classification Committee. It does not follow, however, that one and one-half times first-class rates for all bookcases is an unlawful discrimination against the sectional variety, which is one of the questions presented by this record, and we are not satisfied that there is such difference between the bookcase of complainant and other bookcases as to require a lower rating for the former than for the latter. To establish discrimination in rates resulting from the classification of articles of the same general character there must be preponderating proof in favor of a complaining party, and we are constrained to hold that the evidence in this case is not of that decisive character. Upon the proofs presented we are of the opinion that the sectional bookcase is not entitled to a different and lower rating than is applied to other bookcases and that the action of the carriers in fixing the same classification and rates for sectional as for other bookcases does not exceed the limits of their discretion.

We further held that the charges on sectional bookcases were not shown to be unreasonable, but did not find that they were reasonable and dismissed the complaint without prejudice.

At the time of that decision, in 1905, the complainant shipped sectional bookcases in crates, several sections to the crate. The difference in packing, which, however, did not result in greater density, as in crates the average weight was found to be 7 pounds per cubic foot, is the only substantial change since that date in the conditions of transportation, other, of course, than the increase in the tonnage of sectional bookcases.

In the former case it was found that the commodity named furnished a larger volume of traffic than any other article rated the same in the official classification and that complainant's shipments constituted a little more than one-third of such traffic. It here appears that the number of manufacturers has increased from 12 to 60 and complain-

ant's output about one-third, aggregating over 400,000 sections for the year ended May 31, 1913. It was also found in the former case that sectional bookcases were probably more remunerative to defendants than any other traffic taking the same rates, but that if put into first class they would be less desirable traffic, from the carrier's standpoint, than any one of the large majority of articles accorded the latter rate, though they would pay the carriers rather better than a number of articles carried at first class.

The complainant now contends that sectional bookcases packed in strawboard boxes are a very desirable traffic, which can be loaded with little trouble on top of or around other freight in mixed carloads, and that the only damage resulting is an occasional breakage of glass, the cost of replacing which generally is too small to warrant the filing of claims. The defendants, on the other hand, contend that these shipments so boxed have to be "top-loaded" and that, due to the fact that strawboard is easily punctured, care has to be taken as to the nature of surrounding articles; further, hat either in handling or packing a large crate containing several sections is preferable to several small packages each containing one section and that crates furnish as satisfactory protection as strawboard boxes. The claims for damage in transit are small in either case. The defendants also point to the fact, heretofore stated, that the change in the method of packing has not resulted in greater density, the average weight per cubic foot being substantially the same.

The complainant also contends that the existence of the first-class rating in the other principal classifications raises a presumption that it would also be reasonable in the official classification territory and that the rating should be made uniform throughout the country. In answer the defendants state that the carriers in the South and West, desiring to encourage immigration to their territories, have been very liberal in their ratings on furniture and emigrants' movables, and that the less-than-carload furniture ratings average lower than those in the official classification, but that in view of the fact that the class rates are lower in official classification territory than in the other territories it does not follow because the rating is higher that the rates are higher or are unreasonable.

Upon consideration of the facts of record we see no reason to change our views expressed in the former case as to the rating of sectional bookcases. It is disputed, and the testimony is not convincing, that the change in the method of packing this commodity has resulted in substantial economy of transportation and, upon the record before us, we can see no justification for ordering the establishment of a rating on sectional bookcases, boxed, lower than on that commodity shipped in crates, or lower than on bookcases of other varieties. We are further of opinion that the rating of one and one-half times first class has not been shown to result in rates which are unreasonable or unduly prejudicial to complainant. The complaint will therefore be dismissed, and it will be so ordered.

Silk Association of America *v.* Pennsylvania Railway Company[3]

Globe-Wernicke Company *v.* B. & O. Railway Company[4]

Commentary: The foregoing cases illustrate very well certain of the fundamental principles of freight classification. The "value-of-the-commodity" rule has long received the sanction of the Interstate Commerce Commission and in the Western Classification Case, decided in 1912, this attitude was reiterated: "The value of the article, not its use, is one of the determining factors."[5] With equal vigor, however, the Commission has asserted that "value," though important, is not the controlling element, and this holding, too, has been reiterated more than once. The reason for the qualification of the "value" principle is not hard to find. Railroad managers have been compelled to give consideration to the weight per cubic foot of commodities transported, and in order to insure proper compensation for the transportation of a carload of freight, it has been necessary also, in fixing the rate per 100 pounds, to take into account the fact that a light and bulky article will occupy larger space in the car and contribute less to the total weight per cubic foot of car space occupied than will a heavy article of equal size. Since it usually happens that the light and bulky commodities are those having high value per 100 pounds, what are really two distinct principles of rate making have been the more readily confused, and sometimes stated as a single principle.

The practice of basing rates upon the density of the goods delivered to the carrier is disclosed, for example, in the lower charges on wool in bales as compared with wool in bags, and in the lower charges on commodities "knocked down" (KD) or "nested" (one inside the other) than on the same trticles "set up" (S.U.). Intensive utilization of rolling stock when used for moving light and bulky commodities is also secured by a rule which provides for variable minimum weights to be charged for carload shipments, dependent upon the size of the car ordered. The rules fixing carload minimum weights are subject to the governing principle that the prescribed minimum weight approximate the possible maximum of the car capacity. Where the commercial requirements do not warrant the maintenance of this standard, either an "any quantity" rate may be established, or a lower minimum weight provided.[6]

H. B. V.

March, 1927

[3] See page 57. [4] See page 60. [5] 25 I.C.C. 442.

[6] The most elaborate discussion of the classification problem appears in the Commission's opinion in the Consolidated Classification Case (decided in 1919), which constitutes Volume 54 of the I.C.C. reports. The subject has also been discussed from time to time and at some length, in the *Annual Reports* of the commission.

Paxson Company[1]

MANUFACTURER—EXPLOSIVES

Trade Associations—*Advantages of Membership.* A company manufacturing commercial explosives was a member of a trade association which included 8 of the 14 established manufacturers of explosives in the United States. Although the company bore 35% of the expenses of this association, it obtained little statistical information which it had not already obtained through its own organization; together with its two largest competitors, it solved most of the problems presented to the association and originated most of the legislative and administrative suggestions made by the association. The company decided, however, to retain its membership in the association, because it believed that a trade association was better able than were individual companies to present information to the public and to other companies, and that the association fostered a spirit of goodwill and cooperative competition in the industry.

(1924)

The Paxson Company manufactured commercial explosives. In 1924 there were 14 established manufacturers of dynamite in the United States. Eight of these manufacturers, including the Paxson Company, belonged to a trade association which had been in existence 12 years. Sales of the 8 members were 95% of the total sales of the 14 companies; sales of the Paxson Company were about 35% of the total. Since in many instances the trade association seemed to be duplicating work done by the Paxson Company, the president of that company, in 1924, asked the sales manager to justify the annual expenditure of $25,000 which could be allocated as the direct cost of belonging to the trade association.

The total manufacturing capacity of all commercial explosive plants in the United States was 540,000,000 pounds. Sales in 1923, which were the largest up to that time, had been 341,000,000 pounds. The existence of this overcapacity in the industry resulted in keen competition. One hundred seventy-two companies for the manufacture of dynamite had been founded and had failed between 1903 and 1923. Of the six companies which did not belong to the trade association, one was a consumer company whose output was taken by its own stockholders; one

[1] Fictitious name.

was a manufacturing company which disposed of its output on contract through a member of the association; one was so located that its representatives could not attend the meetings of the association; and three manufactured products which were not considered standard in the industry.

If the Paxson Company could have increased its annual sales of dynamite by 2,000,000 pounds, the cost of belonging to the trade association would have been offset. Membership in the association had not enabled the company to obtain such an increase in sales. An additional profit of about ¼ cent per pound on the total output of the plant also would have offset the expense of belonging to the trade association. It was impossible to discover whether such an increase in price had resulted from the activities of the association. There was no exchange of price information among the members, as such exchange was considered illegal, although information as to the volume of explosives manufactured, sold, and stocked was exchanged.

The sales manager of the Paxson Company believed that price fluctuations were kept within narrower bounds by the exchange of this information, as well as by the forecasts and charts of trade movements made by the association and by the statistics of activities in other industries which the association compiled. Small manufacturers were prevented from being stampeded into quoting prices below the cost of production in order to obtain increased volume of sales during periods of depression. Consumers also were benefited by the activities of the trade association, which helped to eliminate cut-throat competition resulting in bankruptcy of companies and a tendency toward monopoly. Because consumers were freed from the uncertainty and the losses suffered in widely fluctuating markets, they were in a position to buy more advantageously.

The trade association, moreover, was influential in standardizing grades, kinds, sizes, packages, weights, and tare in the dynamite industry. The number of grades of dynamite had been reduced from 39,000 in 1914 to 1,500 in 1918. Standards were established for strength, weight, and quality, and information was exchanged on manufacturing methods and materials. The association put a penalty as high as 30% of the billed price on the sale of any nonstandard products. The association devised safety rules and precautionary measures, such as safe containers,

rules for fire prevention, and safeguards against accidents, and it made recommendations concerning working conditions and the general welfare of employees. It functioned for the industry in regulating safe transportation, storage, and delivery of explosives. Reports of accidents, of near accidents, and of new safety devices were made to members. The requirement of the association that all members comply with its prescribed safety regulations raised costs of small competitors to the level maintained by the Paxson Company. The association endeavored to establish honest and fair practices in the trade, and it condemned misrepresentation, misbranding, and unfair competition. A bureau had been established for the exchange of information on patents and trade-marks.

By means of national publicity, the trade association attempted to educate consumers in the proper methods of using explosives. It assisted in the conservation of materials needed by the government in time of war, and of railway equipment in times of congested traffic. It recommended model laws for the protection of the public against explosives, protested against unjust and discriminatory laws affecting the industry, and represented the industry on questions of tariff and taxation.

Of the total expenses of the association, however, the Paxson Company had to meet 35%. Moreover, the company maintained in its own offices complete records of production, sales, and stocks which it believed to be 99% complete and correct, for all manufacturers and consumers of dynamite in the United States. The Paxson Company had obtained little statistical information of value from the association in addition to its own data. Relations between the company and its two largest competitors, which were located in the same town, were friendly. Most of the manufacturing problems which came to the attention of the association had been solved by these three companies, and most of the legislative and administrative suggestions made by the association had originated with them. The Paxson Company had taken all known precautions for safety, most of which had been devised in its own plant. It had complete chemical control of all its processes and maintained a research laboratory, which, together with those of its two largest competitors, was responsible for most of the improvements in manufacturing methods and materials. These three manufacturers had established the standards which

were prevalent throughout the industry. There existed the possible danger, moreover, that the trade association might be attacked by the government under the anti-trust laws, on the theory that it acted in restraint of trade. Although no information on prices or costs was exchanged, other companies usually followed the Paxson Company in price changes.

The executives of the Paxson Company were convinced, however, that the public could be served best through cooperative effort. To the public and to other companies, the trade association was able to present information which would not have been accepted as true from an individual company. Although the Paxson Company had no fear of its competitors commercially, the association fostered the spirit of goodwill and cooperative competition among them. The Paxson Company, therefore, decided to retain its membership in the association of dynamite manufacturers.

Commentary: The decision of the Paxson Company to continue its membership in the trade association appears to have been a wise one. The fact that certain activities of the association were being duplicated by the Paxson Company fails to remove the fact that other benefits were secured.

Trade associations in general may be said to have four major functions: (1) the maintenance of goodwill among those in the industry; (2) the dissemination to members of information and figures about the trade generally not available to individual companies; (3) the promotion of the prosperity of the industry in general; and (4) the improvement of the public relations of the industry. Unless an industry or trade has problems in some of these respects, the services of a trade association are unnecessary.

The Paxson Company already was receiving statistics on the production, sales, and stocks of explosives in the United States. It was on particularly friendly terms with its two most important competitors, and general goodwill seemed to exist in the trade. The solution of manufacturing problems and the suggestions for administrative and legislative improvement endorsed by the association had originated with the Paxson Company and its two largest competitors. These factors tended to indicate that the trade association was not needed.

Other benefits not already enjoyed could be secured from the association, however, which support the decision of the Paxson Company to remain a member. These will be reviewed under the four functions of a trade association named previously.

1. *Goodwill within the trade.*

By withdrawing from the association, the company would weaken the association materially, and possibly would precipitate an important schism in the industry. By remaining a member, the company could preserve the friendship of smaller producers who leaned heavily upon the association. Trade goodwill is an important asset.

2. *Trade statistics and information.*

A trade association can gather figures more economically than can separate companies. The Paxson Company might even consider the reduction of its own expense in this regard by deciding not to duplicate the work of the association. In case nontrade use was to be made of the figures or information, the fact that the association was the source would reduce any suspicion of propagandism.

3. *Promotion of the prosperity of the industry.*

The explosive industry is one in which cooperative advertising can be used to advantage, as there is need for educational work. The association was taking steps toward standardization which would benefit in a material way everyone in the industry. The overproduction problem could be handled to best advantage by the association, inasmuch as price agreements were prohibited and curtailment of production or general expansion of the market seemed to be the only solutions. The establishing of grades was another contribution made by the association.

4. *Improvement of public relations.*

Individual concerns such as the Paxson Company are handicapped in their efforts to bring about legislative benefits to their industry or improvements in the administration of existing legal enactments, because government functionaries fear that they may be suspected of corruption or favoritism. Trade associations, on the other hand, may attempt to attain these ends without having their intentions questioned. The bargaining power of the industry, also, when centered in a trade association, is greater than that of any of its members. This may be an important factor in many cases, as, for example, in dealing with railroads in tariff adjustments.

It is for these reasons that the decision of the Paxson Company to continue its membership in the association of manufacturers of explosives is upheld. A few functions of the association were not needed by the Paxson Company, but enough others were of value to justify the

company in remaining a member. The cost of doing so, $25,000 a year, seems to have been inordinately high, but it is quite possible that some of the benefits, if they could be measured in dollars, would compensate fully for the expense.

October, 1927 H. N. G.

Maple Flooring Manufacturers' Association, *et al. v.* United States[1]

MANUFACTURERS—FLOORING

Trade Associations—*Restraint of Commerce Held Not to Result from Dissemination of Information on Costs and Prices.* A flooring manufacturers' trade association gathered from its individual members and disseminated to all members information as to the cost of their product, the volume of production, the actual price which the product had brought in past transactions, stocks of merchandise on hand, and the approximate cost of transportation from the principal point of shipment. The members of the association met monthly to discuss such information and statistics, without, however, reaching or attempting to reach any agreement or taking any concerted action with respect to prices or production or the restraint of competition. The Supreme Court of the United States held that the association did not thereby engage in restraint of interstate commerce in violation of the Sherman Anti-Trust Act.[2]

(1925)

Mr. Justice Stone delivered the opinion of the court.

By bill in equity filed March 5, 1923, the United States asked an injunction restraining the defendants, who are appellants here, from violating Section 1 of the Act of Congress of July 2, 1890, entitled, "An act to protect trade and commerce against unlawful restraints and monopolies," 26 Stat. 200 (Comp. St. § 8820), commonly known as the Sherman Act.

The defendants are the Maple Flooring Manufacturers' Association, an unincorporated "trade association"; 22 corporate defendants, members of the association, engaged in the business of selling and shipping maple, beech, and birch flooring in interstate commerce, all but 2 of them having their principal places of business in Michigan, Minnesota, or Wisconsin (one defendant being located in Illinois and one in New York); the several individual representatives of the corporate members of the association; and George W. Keehn, secretary of the association. Of the corporate defendants, approximately one-half own timber lands and sawmills and are producers of the rough lumber from which they manufacture finished flooring, sold and shipped in interstate commerce. The other defendants purchase rough flooring lumber in the open market and manufacture it into finished flooring which is sold and shipped in interstate commerce. In 1922 there were in the states

[1] Supreme Court of the United States. Reargued March 3, 1925. Decided June 1, 1925. 45 Sup. Ct. 578.

[2] Headnote by Graduate School of Business Administration.

of Illinois, Michigan, Minnesota, and Wisconsin, 17 nonmember manufacturers of maple, beech, and birch flooring in the United States who reported to the government. In that year 38 nonmember manufacturers reported a manufacturing capacity of 238,610,000 feet of flooring of the types mentioned, and during the same year the manufacturing capacity of the defendants was 158,400,000 feet. Estimates submitted in behalf of the government indicate that in the year 1922 the defendants produced 70% of the total production of these types of flooring, the percentage having been gradually diminished during the five years preceding, the average for the five years being 74.2%. It is also in evidence that aside from nonmember manufacturers who reported to the government, there are numerous other nonmember manufacturers of such flooring in the United States and Canada. The defendants own only a small proportion of the total stand, in the United States, of maple, beech, and birch timber from which the various types of flooring produced and sold by defendants are manufactured.

In March, 1922, the corporate defendants organized the defendant, the Maple Flooring Manufacturers' Association, but for many years prior to that time, and certainly since 1913, a substantial number of the corporate defendants have participated actively in maintaining numerous successive trade associations of the same name, which were predecessors of the present association. The oral testimony and documentary evidence have covered a wide range and have reached a great volume which it will be impossible, within the limits of an opinion, to review in detail. The defendants have engaged in many activities to which no exception is taken by the government and which are admittedly beneficial to the industry and to consumers; such as cooperative advertising and the standardization and improvement of its product. The activities, however, of the present association of which the government complains may be summarized as follows:

1. The computation and distribution among the members of the association of the average cost to association members of all dimensions and grades of flooring.

2. The compilation and distribution among members of a booklet showing freight rates on flooring from Cadillac, Michigan, to between 5,000 and 6,000 points of shipment in the United States.

3. The gathering of statistics which at frequent intervals are supplied by each member of the association to the secretary of the association giving complete information as to the quantity and kind of flooring sold and prices received by the reporting members, and the amount of stock on hand, which information is summarized by the secretary and transmitted to members without, however, revealing the identity of the members in connection with any specific information thus transmitted.

4. Meetings at which the representatives of members congregate and discuss the industry and exchange views as to its problems.

Before considering these phases of the activities of the association,

it should be pointed out that it is neither alleged nor proved that there was any agreement among the members of the association either affecting production, fixing prices, or for price maintenance. Both by the articles of association and in actual practice, members have been left free to sell their product at any price they choose and to conduct their business as they please. Although the bill alleges that the activities of the defendants hereinbefore referred to resulted in the maintenance of practical uniformity of net delivered prices as between the several corporate defendants, the evidence fails to establish such uniformity, and it was not seriously urged before this court that any substantial uniformity in price had in fact resulted from the activities of the association, although it was conceded by defendants that the dissemination of information as to cost of the product and as to production and prices would tend to bring about uniformity in prices through the operation of economic law. Nor was there any direct proof that the activities of the association had affected prices adversely to consumers. On the contrary, the defendants offered a great volume of evidence tending to show that the trend of prices of the product of the defendants corresponded to the law of supply and demand and that it evidenced no abnormality when compared with the price of commodities generally. There is undisputed evidence that the prices of members were fair and reasonable and that they were usually lower than the prices of nonmembers, and there is no claim that defendants were guilty of unfair or arbitrary trade practices.

The contention of the government is that there is a combination among the defendants, which is admitted; that the effect of the activities of the defendants carried on under the plan of the association must necessarily be to bring about a concerted effort on the part of members of the association to maintain prices at levels having a close relation to the average cost of flooring reported to members; and that consequently there is a necessary and inevitable restraint of interstate commerce; and that therefore the plan of the association itself is a violation of Section 1 of the Sherman Act, which should be enjoined regardless of its actual operation and effect so far as price maintenance is concerned. The case must turn, therefore, on the effect of the activity of the defendants in the gathering and dissemination of information as to the cost of flooring, since, without that, the other activities complained of could have no material bearing on price levels in the industry and it was to this phase of the case that the oral argument was mainly directed.

Having outlined the substantial issues in the case, it will now be convenient to examine more in detail the several activities of the defendants of which the government complains.

Computation and Distribution among the Members of Information As to the Average Cost of Their Product

There are three principal elements which enter into the computation

of the cost of finished flooring. They are the cost of raw material, manufacturing cost, and the percentage of waste in converting rough lumber into flooring. The information as to the cost of rough lumber was procured by the secretary from reports of actual sales of lumber by members in the open market. From five to ten ascertained sales were taken as standard and the average was taken as the estimated cost of raw material. Manufacturing costs were ascertained by questionnaires sent out to members by which members were requested to give information as to labor costs, cost of warehousing, insurance and taxes, interest at 6% on the value of the plant, and selling expense, including commissions and cost of advertising and depreciation of plant. From the total thus ascertained there was deducted the net profit from wood and other by-products. The net total cost thus ascertained of all members reporting was then averaged.

The percentage of waste in converting the rough lumber into flooring was ascertained by test runs made by selected members of the association under the direction of the secretary of the association, in the course of which a given amount of rough lumber was converted into flooring of different sizes and the actual waste in the process ascertained and stated in terms of percentage. By combining the three elements of cost thus arrived at, the total cost per thousand feet of the aggregate of the different types and grades of flooring produced from a given amount of rough lumber was estimated. To this cost there was at one time added an estimated 5% for contingencies, which practice, however, was discontinued by resolution of the association of July 19, 1923. For the element of manufacturing and marketing cost, the first of these estimates prepared in the manner described was based upon an average of such cost for the first half of 1921. Other successive estimates were prepared on a like basis during the first, third, and fourth quarter of the year 1922.

In order to determine the cost of a given type or grade of flooring, it was necessary to distribute the total cost of the aggregate of the different types and grades of finished flooring produced from a given amount of rough lumber among the several types and grades thus produced. This distribution was made by the officials of the association, and the estimated cost thus determined was tabulated and distributed among the members of the association. There is no substantial claim made on the part of the government that the preparation of these estimates of cost was not made with all practicable accuracy, or that they were in any respect not what they purported to be, an estimate of the actual cost of commercial grades of finished flooring fairly ascertained from the actual experience of members of the association, except that the point is made by the government that the distribution of cost among the several types and grades of finished flooring produced from a given amount of rough lumber was necessarily arbitrary and that it might be or become a cover for price fixing. Suffice it to say that neither the government nor the defendants seem to have found it necessary to prove upon what principle of cost accounting this distribution of cost was

made, and there are no data from which any inference can be drawn as to whether or not it conformed to accepted practices of cost accounting applied to the manufacture of a diversified product from a single type of raw material.

The Compilation and Distribution among Members of Information As to Freight Rates

Through the agency of the secretary of the association, a booklet was compiled and distributed to members of the association showing freight rates from Cadillac, Michigan, to numerous points throughout the United States to which the finished flooring is shipped by members of the association. It appears from the evidence to have been the usual practice, in the maple flooring trade, to quote flooring at a delivered price and that purchasers of flooring usually will not buy on any other basis. The evidence, however, is undisputed that the defendants quote and sell on an f.o.b. mill basis whenever a purchaser so requests. It also appears that the mills of most of the members of the association are located in small towns in Michigan and Wisconsin and that the average freight rates from these principal producing points in Michigan and Wisconsin, to the principal centers of consumption in the United States, are approximately the same as the freight rate from Cadillac, Michigan, to the same centers of consumption. There is abundant evidence that there were delays in securing quotations of freight rates from the local agents of carriers in towns in which the factories of defendants are located, which seriously interfered with prompt quotations of delivered prices to customers; that the actual aggregate difference between local freight rates for most of defendants' mills and the rate appearing in defendants' freight rate book based on rates at Cadillac, Michigan, were so small as to be only nominal, and that the freight rate book served a useful and legitimate purpose in enabling members to quote promptly a delivered price on their product by adding to their mill price a previously calculated freight rate which approximated closely to the actual rate from their own mill towns.

The government bases its criticism of the use of the freight rate book upon the fact that antecedent associations maintained by defendants, incorporated in the freight rate book a delivered price which was made up by adding the calculated freight rate from Cadillac, Michigan, to a minimum price under the so-called "minimum price plan" of previous associations, whereby the price was fixed at cost plus 10% of profit. It is conceded that the present association does not include a delivered price in the freight rate book, but it is urged by the government that the circulation of the tables of estimated cost of flooring, together with a freight rate book, enables members of the association to fix a delivered price by adding to the estimated cost circulated among members, the calculated freight rate published in the freight rate book, and that the freight rate book used in conjunction with the published material as to estimated cost is merely a device whereby the defendants have con-

tinued the so-called minimum price plan formerly maintained by predecessor associations, which was a plan whereby the members cooperated in the maintenance of a fixed minimum price. Defendants maintain that the minimum price plan was never actually carried out by any predecessor association, and that it was formally abandoned in February or March, 1920, after the failure to secure the approval of the plan by the Federal Trade Commission, and was never revived or continued.

It cannot, we think, be questioned that data as to the average cost of flooring circulated among the members of the association, when combined with a calculated freight rate which is either exactly or approximately the freight rate from the point of shipment, plus an arbitrary percentage of profit, could be made the basis for fixing prices or for an agreement for price maintenance which, if found to exist, would, under the decisions of this court, constitute a violation of the Sherman Act. But, as we have already said, the record is barren of evidence that the published list of costs and the freight rate book have been so used by the present association. Consequently, the question which this court must decide is whether the use of this material by members of the association will necessarily have that effect so as to produce that unreasonable restraint of interstate commerce which is condemned by the Sherman Act.

The Gathering and Distributing among Members of Trade Statistics

It is contended by the government that an analysis of the reporting system adopted by the defendants shows that there is no information withheld by one member from another, and that every member is perfectly familiar not only with the summaries which show the exact market condition generally, but also with the exact condition of the business of each of his fellow members. An examination of the record discloses that this is not an accurate statement of the statistical information distributed among members of the association, certainly not within any recent period of the history of all the successive associations. At the time of the filing of the bill, members reported weekly to the secretary of the association on forms showing dates of sales made by the reporting member, the quantity, the thickness and face, the grade, the kind of wood, the delivery, the prices at which sold, the average freight rate to destination, and the rate of commission paid, if any. Members also reported monthly the amount of flooring on hand of each dimension and grade and the amount of unfilled orders. Monthly reports were also required showing the amount of production for each period and the new orders booked for each variety of flooring. The association promptly reported back to the members statistics compiled from the reports of members, including the identifying numbers of the mills making the reports, and information as to quantities, grades, prices, freight rates, etc., with respect to each sale. The names of purchasers

were not reported, and from and after July 19, 1923, the identifying number of the mill making the report was omitted. All reports of sales and prices dealt exclusively with past and closed transactions. The statistics gathered by the defendant association are given wide publicity. They are published in trade journals which are read by from 90% to 95% of the persons who purchase the products of association members. They are sent to the Department of Commerce, which publishes a monthly survey of current business. They are forwarded to the Federal Reserve and other banks and are available to any one at any time desiring to use them. It is to be noted that the statistics gathered and disseminated do not include current price quotations; information as to employment conditions; geographical distribution of shipments; the names of customers or distribution by classes of purchasers; the details with respect to new orders booked, such as names of customers, geographical origin of orders; or details with respect to unfilled orders, such as names of customers, their geographical location; the names of members having surplus stocks on hand; the amount of rough lumber on hand; or information as to cancellation of orders. Nor do they differ in any essential respect from trade or business statistics which are freely gathered and publicly disseminated in numerous branches of industry producing a standardized product such as grain, cotton, coal oil, and involving interstate commerce whose statistics disclose volume and material elements affecting costs of production, sales price, and stock on hand.

Association Meetings

The articles of the defendant association provide for regular meetings for the transaction of business on the third Wednesday of April, July, and October of each year, and that special meetings may be called by the president or a majority of the board of trustees. During the year in which the bill of complaint was filed, meetings appear to have been held monthly. Minutes of meetings were kept, although it is not contended that they constituted a complete record of the proceedings. Trade conditions generally, as reflected by the statistical information disseminated among members, were discussed; the market prices of rough maple flooring were also discussed, as were also manufacturing and market conditions. Those members who did not produce rough flooring lumber improved the occasion of the monthly meetings to secure purchases of this commodity from other members. The testimony is explicit and not denied that following the decision in *United States* v. *American Linseed Oil Company*, 262 U.S. 371, 43 Sup. Ct. 607, 67 L. Ed. 1035 (June, 1923), there was no discussion of prices in meetings. There was no occasion to discuss past prices, as those were fully detailed in the statistical reports and the association was advised by counsel that future prices were not a proper subject of discussion. It was admitted by several witnesses, however, that upon occasion the trend of prices and future prices became the subject of

discussion outside the meeting among individual representatives of the defendants attending the meeting. The government, however, does not charge, nor is it contended, that there was any understanding or agreement, either express or implied, at the meetings or elsewhere, with respect to prices.

Upon this state of the record, the District Court, from whose decision this appeal was taken, held that the plan or system operated by the defendant had a direct and necessary tendency to destroy competition; that the methods employed by them had at all times a controlling influence to impeding the economic laws of supply and demand, and tending to increase prices, and to stifle competition; that the plan of the association was therefore inherently illegal; that in consequence the actual results flowing from such a plan and the execution of it are of secondary importance. The court accordingly decreed the dissolution of the defendants and enjoined them from engaging in activities complained of by the government. In arriving at this result it was admitted that it was impossible to measure, either accurately or even approximately, the effect of the activities of the defendants upon prices, production, and competition in the flooring industry, for the reason that there could be, in the nature of things, no satisfactory standards of comparison. The court found no agreement to fix prices and that in fact lower prices have usually been quoted by members than by nonmembers of the association. In reaching its conclusion, the court relied principally upon the necessary tendency or effect of the plan actually in operation and upon the past history of the association and its predecessors as indicating a probable purpose on the part of the members of the association to use the plan as a medium for effecting actual and undue restraint on interstate commerce, and it is urged here that the history of the successive associations organized by the members of the defendant association, or a majority of them, establishes a systematic purpose on the part of the corporate defendants to restrain interstate commerce.

It is pointed out that the articles of the association of January 1, 1913, embodied the so-called "allotment plan," which provided for an allotted percentage of the aggregate shipments of all members within a given period, to each member, with a provision for payment of a bonus or allowance to each member which did not make its full allotment or percentage of shipments. This plan was abandoned in March, 1920. On July 1, 1916, the articles of association of that date adopted a minimum price plan which it is claimed continued in effect until about January 1, 1921. This plan contemplated the establishment of a minimum price of maple, beech, and birch flooring by members of the association, such prices to consist of the average cost and expense of manufacturing and selling the product, plus an average profit of 10%. The plan provided drastic penalties for the sale of flooring at less than the minimum price so established. It is also charged that in January, 1921, the defendants, by agreement, established a minimum price basis for the sale of flooring for the ensuing year. Under this

plan the average net profit was reduced from 10% to 5%, and penalties for noncompliance with the minimum price scale were abolished.

It is conceded, however, that each of these several plans was abandoned and that the present association, both by the terms of its articles of association and in actual practice, has confined itself to the activities which have already been described in some detail.

We think it might be urged, on the basis of this record, that the defendants, by their course of conduct instead of evidencing the purpose of persistent violators of law, had steadily indicated a purpose to keep within the boundaries of legality as rapidly as those boundaries were marked out by the decisions of courts interpreting the Sherman Act. Whether, however, their general purpose was to become law-abiding members of the community or lawbreakers, it is not, we think, very material unless the court either can infer from this course of conduct a specific and continuing purpose or agreement or understanding on their part to do acts tending to effect an actual restraint of commerce[3] or unless, on the other hand, it is established that the combination entered into by the defendants in the organization of the defendant association, and its activities as now carried on must necessarily result in such restraint. As already indicated, the record is barren of evidence tending to establish that there is any agreement or purpose or intention on the part of defendants to produce any effect upon commerce other than that which would necessarily flow from the activities of the present association, and in our view the government must stand or fall upon its ability to bring the facts of the present case within the rule as laid down in *American Column Company* v. *United States*, 257 U.S. 377, 42 Sup. Ct. 114, 66 L. Ed. 284, 21 A.L.R. 1093, where it was said at page 400, 42 Sup. Ct. 117:

> It has been repeatedly held by this court that the purpose of the statute is to maintain free competition in interstate commerce and that any concerted action by any combination of men or corporations to cause, or which in fact does cause, direct and undue restraint of competition in such commerce falls within the condemnation of the act and is unlawful.

—and within the rule laid down by the court in *United States* v. *American Linseed Oil Company*, 262 U.S. 371, at page 390, 43 Sup. Ct. 607, at page 611, 67 L. Ed. 1035:

> In the absence of a purpose to monopolize or the compulsion that results from contract or agreement, the individual certainly may exercise great freedom; but concerted action through combination presents a wholly different problem and is forbidden when the necessary tendency is to destroy the kind of competition to which the public has long looked for protection.

It should be noted that the bill of complaint neither charges, nor

[3] *United States* v. *United States Steel Corporation*, 251 U.S. 417, 40 Sup. Ct. 293, 64 L. Ed. 343, 8 A.L.R. 1121.

does the government urge, that there was any purpose on the part of the defendants to monopolize commerce in maple, beech, and birch flooring. It is not contended that there was the compulsion of any agreement fixing prices, restraining production or competition, or otherwise restraining interstate commerce. In our view, therefore, the sole question presented by this record for our consideration is whether the combination of the defendants in their existing association as actually conducted by them has a necessary tendency to cause direct and undue restraint of competition in commerce falling within the condemnation of the act. In urging that such is the necessary effect, the government relies mainly upon the decisions of this court in *Eastern State Retail Lumber Dealers' Association* v. *United States,* 234 U. S. 600, 34 Sup. Ct. 951, 58 L. Ed. 1490, L.R.A. 1915A, 788; *American Column & Lumber Company* v. *United States, supra;* and *United States* v. *American Linseed Oil Company, supra.*

It should be said at the outset that in considering the application of the rule of decision in these cases to the situation presented by this record, it should be remembered that this court has often announced that each case arising under the Sherman Act must be determined upon the particular facts disclosed by the record, and that the opinions in those cases must be read in the light of their facts and of a clear recognition of the essential differences in the facts of those cases, and in the facts of any new case to which the rule of earlier decisions is to be applied.

In *Eastern States Retail Lumber Dealers' Association* v. *United States, supra,* the defendant members of the association had entered into a combination and agreement whereby members were required to report to the association the names of wholesale dealers in lumber who sold their product directly to consumers. The names of the offending wholesalers were placed upon a "black list" which was circulated among the members of the association. The name of a blacklisted wholesaler could be removed from the list only on application to the secretary of the association and on assurance that the offending wholesaler would no longer sell in competition with retailers. It was conceded by the defendants, and in the court below found, that the circulation of this information would have a natural tendency to cause retailers receiving these reports to withhold patronage from listed concerns; that it therefore, necessarily, tended to restrain wholesalers from selling to the retail trade, which in itself was an undue and unreasonable restraint of commerce. Moreover, the court said, at page 612, 34 Sup. Ct. 956:

> This record abounds in instances where the offending dealer was thus reported, the hoped-for effect, unless he discontinued the offending practice, realized, and his trade directly and appreciably impaired.

There was thus presented a case in which the court could not only see that the combination would necessarily result in a restraint on commerce which was unreasonable, but where in fact such restraints

had actually been effected by the concerted action of the defendants.

In *American Column & Lumber Company* v. *United States, supra,* the defendant association was engaged in gathering and disseminating among its members daily reports of all sales actually made; the name and address of the purchaser; the kind, grade, and quality of commodity; a daily shipping report giving details of all shipments made; a monthly production report, giving production of the member during the previous month; a monthly stock report showing stock on hand on the first day of the month; current price lists, followed by prompt information as to new price quotations as made. Monthly meetings were held at which the extensive interchange of reports was supplemented by further exchange of information as to production, at which active and concerted efforts were made to suppress competition by the restriction of production. The secretary of the association, in communications to members, actively urged curtailment of production and increase of prices. The record disclosed a systematic effort, participated in by the members of the association and led and directed by the secretary of the association, to cut down production and increase prices. The court not only held that this concerted effort was in itself unlawful, but that it resulted in an actual excessive increase of price to which the court found the "united action of this large and influential membership of dealers contributed greatly." The opinion of the court in that case rests squarely on the ground that there was a combination on the part of the members to secure concerted action in curtailment of production and increase of price, which actually resulted in a restraint of commerce, producing increase of price.

In *United States* v. *American Linseed Oil Company, supra,* defendants entered into an agreement, with provisions for financial forfeitures in event of its violation, for the organization and maintenance of an exchange or bureau whose function it was to gather and distribute information, among the members, as to all price lists covering the product of members. Members agreed, under heavy penalties for violation, to furnish to the bureau a "schedule of prices and terms and adhere thereto—unless more onerous ones were obtained—until prepared to give immediate notice of departure therefrom for relay by the bureau to members." Members were required by the agreement to report by telegraph all variations of prices; the names of prospective buyers; the point of shipment; the exact prices, terms, and discounts; whether sales were made to jobber, or dealer or consumer; in what quantity; and to report also by telegraph all orders received; to report daily all carload sales of product, giving full details; all such information being treated as confidential and concealed from the buyers. All information received was made available to members through the statistical surveys of the bureau. It was provided that any subscriber who had offered his product to a prospective buyer, who did not purchase, should have the right to advise the bureau of the unsuccessful offer and to request the bureau to "bulletin" all its subscribers, asking specific information regarding any quotations for sale to such prospec-

tive buyer, and to make to subscribers a compilation report of the information secured by such "bulletin." Members were required to give the desired information. Each subscriber was required to furnish the bureau, upon request, information pertaining to any buyer of the product and might request the bureau to secure like information from all other subscribers "whenever it shall have an order or account with or inquiry from the buyer." The plan as organized was actively carried out by the defendants, and the court held that the plan as operated by the defendants was a violation of the Sherman Act in that "its necessary tendency was to suppress competition in interstate commerce." It was held that the agreement for price maintenance accompanied by free exchange of information between competitors as to current prices of the product offered for sale, full details as to purchasers, actual and prospective, and the exchange of information as to buyers and those to whom offerings were made by sellers and of the terms of such offerings, could necessarily have only one purpose and effect; namely, to restrain competition among sellers. The court said, at page 389, 43 Sup. Ct. 611:

> If, looking at the entire contract by which they are bound together, in the light of what has been done under it the court can see that its necessary tendency is to suppress competition in trade between the states, the combination must be declared unlawful. That such is its tendency, we think, must be affirmed.

It is not, we think, open to question that the dissemination of pertinent information concerning any trade or business tends to stabilize that trade or business and to produce uniformity of price and trade practice. Exchange of price quotations of market commodities tends to produce uniformity of prices in the markets of the world. Knowledge of the supplies of available merchandise tends to prevent overproduction and to avoid the economic disturbances produced by business crises resulting from overproduction. But the natural effect of the acquisition of wider and more scientific knowledge of business conditions, on the minds of the individuals engaged in commerce and its consequent effect in stabilizing production and price, can hardly be deemed a restraint of commerce, or, if so, it cannot, we think, be said to be an unreasonable restraint, or in any respect unlawful.

It is the consensus of opinion of economists and of many of the most important agencies of government that the public interest is served by the gathering and dissemination, in the widest possible manner, of information with respect to the production and distribution, cost, and prices in actual sales of market commodities because the making available of such information tends to stabilize trade and industry, to produce fairer price levels, and to avoid the waste which inevitably attends the unintelligent conduct of economic enterprise. "Free competition" means a free and open market among both buyers and sellers for the sale and distribution of commodities. Competition does not become less free merely because the conduct of commercial

operations becomes more intelligent through the free distribution of knowledge of all the essential factors entering into the commercial transaction.[4] General knowledge that there is an accumulation of surplus of any market commodity would undoubtedly tend to diminish production, but the dissemination of that information cannot in itself be said to be restraint upon commerce in any legal sense. The manufacturer is free to produce, but prudence and business foresight based on that knowledge influences free choice in favor of more limited production. Restraint upon free competition begins when improper use is made of that information through any concerted action which operates to restrain the freedom of action of those who buy and sell.

It was not the purpose or the intent of the Sherman Anti-Trust Law to inhibit the intelligent conduct of business operations, nor do we conceive that its purpose was to suppress such influence as might affect the operations of interstate commerce through the application to them of the individual intelligence of those engaged in commerce, enlightened by accurate information as to the essential elements of the economics of a trade or business, however gathered or disseminated. Persons who unite in gathering and disseminating information in trade journals and statistical reports on industry, who gather and publish statistics as to the amount of production of commodities in interstate commerce, and who report market prices, are not engaged in unlawful conspiracies in restraint of trade merely because the ultimate result of their efforts may be to stabilize prices or limit production through a better understanding of economic laws and a more general ability to conform to them, for the simple reason that the Sherman Law neither repeals economic laws nor prohibits the gathering and dissemination of information. Sellers of any commodity who guide the daily conduct of their business on the basis of market reports would hardly be deemed to be conspirators engaged in restraint of interstate commerce. They would not be any the more so merely because they became stockholders in a corporation or joint owners of a trade journal, engaged in the business of compiling and publishing such reports.

We do not conceive that the members of trade associations become such conspirators merely because they gather and disseminate information, such as is here complained of, bearing on the business in which they are engaged and make use of it in the management and control of their individual businesses; nor do we think that the proper application of the principles of decision of *Eastern States Retail Lumber Association* v. *United States*, or *American Column & Lumber Company* v. *United States*, or *United States* v. *American Linseed Oil Company*, leads to any such result. The court held that the defendants in those cases were engaged in conspiracies against interstate trade and commerce because it was found that the character of the information which

[4] See a suggestive analysis of the Competitive System by various economists collected and commented on in Marshall's *Readings on Industrial Society*, 294, 419, 479, 498, 935. See Hobson, *The Evolution of Modern Capitalism*, 403, 5; Irving Fisher, *Elementary Principles of Economics*, 427 *et seq.*

had been gathered and the use which was made of it lead irresistibly to the conclusion that they had resulted, or would necessarily result, in a concerted effort of the defendants to curtail production or raise prices of commodities shipped in interstate commerce. The unlawfulness of the combination arose, not from the fact that the defendants had effected a combination to gather and disseminate information, but from the fact that the court inferred from the peculiar circumstances of each case that concerted action had resulted or would necessarily result in tending arbitrarily to lessen production or increase prices.

Viewed in this light, can it be said in the present case that the character of the information gathered by the defendants, or the use which is being made of it, leads to any necessary inference that the defendants either have made or will make any different or other use of it than would normally be made if like statistics were published in a trade journal or were published by the Department of Commerce, to which all the gathered statistics are made available? The cost of production, prompt information as to the cost of transportation, are legitimate subjects of inquiry and knowledge in any industry. So likewise is the production of the commodity in that industry, the aggregate surplus stock, and the prices at which the commodity has actually been sold in the usual course of business.

We realize that such information, gathered and disseminated among the members of a trade or business, may be the basis of agreement or concerted action to lessen production arbitrarily or to raise prices beyond the levels of production and price which would prevail if no such agreement or concerted action ensued, and those engaged in commerce were left free to base individual initiative on full information of the essential elements of their business. Such concerted action constitutes a restraint of commerce and is illegal and may be enjoined as may any other combination or activity necessarily resulting in such concerted action as was the subject of consideration in *American Column & Lumber Company* v. *United States, supra,* and *United States* v. *American Linseed Oil Company, supra.* But in the absence of proof of such agreement or concerted action having been actually reached or actually attempted, under the present plan of operation of defendants we can find no basis in the gathering and dissemination of such information by them or in their activities under their present organization for the inference that such concerted action will necessarily result within the rule laid down in those cases.

We decide only that trade associations or combinations or persons or corporations which openly and fairly gather and disseminate information as to the cost of their product, the volume of production, the actual price which the product has brought in past transactions, stocks of merchandise on hand, approximate cost of transportation from the principal point of shipment to the points of consumption, as did these defendants and who, as they did, meet and discuss such information and statistics without however reaching or attempting to reach any

agreement or any concerted action with respect to prices or production or restraining competition, do not thereby engage in unlawful restraint of commerce.

The decree of the District Court [decreeing the dissolution of the defendants and enjoining them from engaging in the activities complained of by the government] is reversed.

Mr. Chief Justice TAFT, Mr. Justice SANFORD, and Mr. Justice MCREYNOLDS dissent.[5]

[5] For dissenting opinion, see page 96. For commenting, see page 97.

CEMENT MANUFACTURERS' PROTECTIVE ASSOCIATION, *et al. v.* UNITED STATES[1]

MANUFACTURERS—CEMENT

TRADE ASSOCIATIONS—*Restraint of Commerce Held Not to Result from Dissemination of Information on Individual Contracts.* A cement manufacturers' trade association gathered and reported to its members information concerning "specific job contracts," whereby a manufacturer agreed to deliver to a contractor cement to be used in a specific piece of work, at a price which might not be increased, but might be reduced if the market declined, so that a contractor bidding for a specific job was given in effect an option to purchase such cement as was required for the specific purpose. The information collected by the association in some cases disclosed instances of contractors' attempts to procure in a rising market from a number of manufacturers more cement than was required for the particular job involved, which information the manufacturers were free to act upon or not as they chose. The Supreme Court of the United States held that the association did not thereby restrain commerce in violation of the Sherman Anti-Trust Act, even though in the ordinary course of business most sellers would act on the information and refuse to make deliveries for which they were not legally bound.[2]

TRADE ASSOCIATIONS—*Restraint of Commerce Held Not to Result from Dissemination of Information on Costs and Prices.* The Supreme Court of the United States held that it was not an unlawful restraint of commerce, violative of the Sherman Anti-Trust Act, for a cement manufacturers' trade association to gather and report to its members information as to production, price of cement sold in actual closed specific job contracts, and transportation costs from chief points of production in the cement trade, even though it were assumed that the gathering and reporting of such information tended to bring about uniformity in price.[2]

(1925)

Mr. Justice STONE delivered the opinion of the court.

This is an appeal from a final decree of the District Court for the Southern District of New York granting a perpetual injunction in a proceeding brought by the United States under section 4, chapter 647, of the Act of July 2, 1890, 26 Stat. 209 (Comp. St. § 8823), commonly known as the Sherman Act. Defendants are the Cement Manu-

[1] Supreme Court of the United States. Argued March 3-5, 1925. Decided June 1, 1925. 45 Sup. Ct. 586.

[2] Headnote by Graduate School of Business Administration.

facturers' Protective Association, an unincorporated association, 4 individuals, the officers of the association, and 19 corporations, members of the association, engaged in manufacturing and shipping Portland cement in interstate commerce, in Pennsylvania, New Jersey, New York, Maryland, and Virginia. The petition, which was filed on the 30th day of June, 1921, alleges restraint of interstate commerce in violation of section 1 of the act (Comp. St. § 8820). The complaint prays that the Cement Manufacturers' Protective Association be adjudged a violation of section 1 and enjoined accordingly. After final hearing, the District Court entered its decree enjoining the continuance of the Cement Manufacturers' Protective Association and enjoined it and the several defendants from engaging in the activities of which the government complains and of which a summary account will presently be given.

The association was organized in January, 1916. Its purposes, as described by the constitution, were:

> The collection and dissemination of such accurate information as may serve to protect each manufacturer against misrepresentation, deception and imposition, and enable him to conduct his business exactly as he pleases in every respect, and particularly free from misdirection by false or insufficient information concerning the following matters, to wit:
>
> (*a*) Information concerning credits;
>
> (*b*) Information concerning contracts which have been made for the delivery of cement sufficiently complete to enable the manufacturer to protect himself against spurious contracts and like transactions induced by misrepresentations;
>
> (*c*) Information concerning freight rates on cement;
>
> (*d*) Statistical information as to production, stocks of cement and clinker on hand, and shipments.

The constitution also provides that:

> Membership in the association shall be recognized as implying that the member is absolutely free to conduct his business exactly as he pleases in every respect and particular.

Cement is a thoroughly standardized product. It is manufactured from limestone and shale which are crushed to extreme fineness, then subjected to high temperatures which process produces a fused mass, which when cooled is known as clinker. The clinker is then ground into the finished product, which is then ready for transportation and use. Clinker is not subject to deterioration, but the ground clinker or cement deteriorates rapidly on exposure to moisture and cannot be kept in storage except for a limited period of time. The defendant corporations are manufacturers of this product, which is shipped in interstate commerce principally within the areas of the several states in which the several defendants are located, and they are competitors in the business of shipping the product in interstate commerce. From

60% to 65% of the total product of the several corporate defendants is sold to the general trade for immediate use. Of this 60% to 65% approximately two-thirds is sold to dealers who are allowed a differential from the sales price to the retail trade.

The activities of defendant, on which the government bases its case for an injunction, may summarily be stated as follows: The government charges that the defendants, through the activities of the association, control prices and production of cement within the territorial area served by the several defendants in the following manner:

1. By the use of "specific job contracts" for future delivery of cement, accompanied by a system of reports and trade espionage having as its objective the restriction of deliveries of cement under those contracts;
2. By compiling and distributing, among the members, freight rate books which give the rate of freight from arbitrary basing points to numerous points of delivery within the territorial area served by the several defendants;
3. By exchange of information concerning credits;
4. By activities of the association at its meetings.

The government asserts that uniformity of prices and limitation of production are necessary results of these activities of the defendants. It does not, however, charge any agreement or understanding between the defendants placing limitations on either prices or production. The evidence does not establish that prices were excessive or unreasonable, and the District Court found "as compared with the rise of prices of other basic commodities, it is possible to say that the quotations of cement advanced less than others." The court also found that competition had not been destroyed by the association and that upon many occasions the defendants were active in endeavoring to take business from companies associated with them. The court, however, held that the activities of the defendant in connection with specific job contracts tended to limit the amount of cement distributed to the trade under those contracts; that the exchange of information complained of generally tended to limit production; that the dissemination of this information, especially that contained in the freight rate book, tended to produce uniformity in price; and that there was accordingly a restraint of commerce within the principles laid down in *American Column & Lumber Company* v. *United States,* 257 U.S. 393, 42 Sup. Ct. 114, 66 L. Ed. 284, 21 A.L.R. 1093; *United States* v. *American Linseed Oil Company,* 262 U.S. 371, 43 Sup. Ct. 607, 67 L. Ed. 1035.

It is conceded, and the court below found, that before the organization of the present association there was substantial uniformity of trade practices in the cement trade, so far as is pertinent to the present discussion, in the following respects:

1. The sale of cement by specific job contracts for future delivery;
2. The selling of cement, f.o.b. delivery;
3. Using freight basing points in the quotation of prices;

4. Including in all quotations for sale of cement, a freight rate from a basing point to the place of delivery;

5. Charging purchasers of cement for bags in which the product is shipped and allowing credit for bags returned to the manufacturers in good condition.

Since there is no exchange of information among the defendants with respect to contracts for the sale of cement for immediate delivery, which constitutes more than 60% of the business, the government's contention before this court centered upon the use of the specific job contract by defendants and their activities in connection with such contracts, since without the use of the specific job contract the other activities complained of could have no substantial bearing on restraint of competition with respect either to prices or production. It will therefore be necessary to consider more at length the activities of the defendants in connection with specific job contracts and incidentally their other activities as related to sales of cement under specific job contracts and the information exchanged with respect to such contracts.

Specific Job Contracts

The specific job contract and the practices of the trade with respect to making deliveries in performance of those contracts were customary in the trade long before any of the collective activities complained of in this case. We do not understand the government to contend that the use of specific job contracts by defendants or that their use generally by the trade is the result of any agreement or understanding or in itself constitutes any violation of the Sherman Law. It is contended that the violation arises rather from the cooperation among the several defendants in acquiring and distributing information with reference to specific job contracts and the effect of the dissemination of that information on the trade, to which reference will now be made.

The specific job contract is a form of contract in common use by manufacturers of cement whereby cement is sold for future delivery for use in a specific piece of construction which is described in the contract. As was stated in the opinion of the court below, they are contracts "whereby a manufacturer is to deliver, in the future, cement to be used in a specific piece of work, such as a particular building or road, and the obligation is that the manufacturer shall furnish and the contractor shall take only such cement as is required for or used for the specific purpose." These contracts have, by universal practice, been treated by cement manufacturers as, in effect, free options customarily made and acted upon on the understanding that the purchaser is to pay nothing until after the delivery of the cement to him; that he is not obligated in any event to take the cement contracted for unless he chooses to; that he is not held to the price named in the contract in the event of a decline in the market price; whereas the manufacturer may be held to the contract price if the market advances and may be held for the delivery of the full amount of cement required

for the completion of the particular piece of construction described in the contract. The practical effect and operation of the specific job contract therefore is to enable contractors who are bidding upon construction work to secure a call or option for the cement required for the completion of that particular job at a price which may not be increased, but may be reduced if the market declines. It enables contractors to bid for future construction work with the assurance that the requisite cement will be available at a definitely ascertained maximum price.

In view of the option features of the contract referred to, the contractor is involved in no business risk if he enter into several specific job contracts with several manufacturers for the delivery of cement for a single specific job. The manufacturer, however, is under no moral or legal obligation to supply cement except such as is required for the specific job. If, therefore, the contractor takes advantage of his position and of the peculiar form of the specific job contract, as modified by the custom of the trade, to secure deliveries from each of several manufacturers of the full amount of cement required for the particular job, he in effect secures the future delivery of cement not required for the particular job, which he is not entitled to receive, which the manufacturer is under no legal or moral obligation to deliver, and which presumably he would not deliver if he had information that it was not to be used in accordance with his contract. The activities of the defendants complained of are directed toward securing this information and communicating it to members, and thus placing them in a position to prevent contractors from securing future deliveries of cement which they are not entitled to receive under their specific job contracts, and which experience shows they endeavor to procure especially in a rising market.

Members are required to make to the secretary of the association prompt reports of all specific job contracts, describing in detail the contract and giving the name and address of the purchaser; the amount of cement required, the price and delivery point; also the date of expiration of the contract. They are also required to make detailed reports of all changes in the contract, including increases in the amount of cement to be delivered and cancellations. The association also employs "checkers," whose business it is, by actual inspection and inquiry, to ascertain, so far as possible, the amount of cement required for specific jobs referred to in specific job contracts, and whether cement shipped under specific job contracts is actually used or required for use under such contracts. Without entering into any detailed discussion of this phase of the activity of defendants, we accept fully the government's contention that the defendants regularly take all practicable steps to ascertain whether cement contracted for under the specific job type of contract was actually being used for the job described in the contract, and that the fullest information with respect to such contracts and the use of cement shipped under said contracts

is reported to the members of the association through the mediation of the secretary.

The government does not contend that the activities of the association with respect to specific job contracts diminished the number of such contracts, or that they diminished in any way the obligations of members of the association upon such contracts. There is, however, abundant evidence to show that there were actual cancellations of deliveries on the ground that contractors were not entitled, under the terms of their contracts, to receive such deliveries. In 1920, of 1,392 contracts investigated and found to be "padded" to the extent of more than 3,500,000 barrels of cement, 978 were partially canceled to the extent of 2,014,653 barrels.

The Association Freight Rate Book

The custom in the cement trade of selling cement at a delivered price, which includes the mill price, the price of bags, and freight charges, was an established trade practice before the organization of the defendant association. As required by the by-laws of the defendant association, it has distributed to its members freight rate books, listing freight rates from established basing points to practically every city and town in the northeast section of the United States. The freight rates contained in the freight rate book are compiled from the official tariffs and translated from the rate per ton of the official tariffs into the rate per barrel of 380 pounds, the unit for the sale of cement. Similar lists of freight rates embracing substantially the same subject-matter were prepared and used by individual manufacturers before the organization of the defendant association. The association freight rate book took the place of previous separate publications by individual manufacturers, with a consequent saving of money and increase of accuracy and a more thorough and continuous checking of rates. The basing points from which freight rates were calculated were not selected by the association, but were the same as those appearing in prior books published by individuals before the publication of the association freight rate book. The basing points are points of actual shipment from which the larger proportion of the cement in a given locality in which cement is manufactured is actually shipped. The rates published are the actual rates omitting fractions of cents, between the basing points and actual points of delivery.

Manufacturers customarily, and for the purpose of the convenient conduct of their business, maintain a uniform base or factory price, so far as the customers of the individual manufacturer are concerned. That is to say, the business is conducted on a "one-price" basis. In order, however, to determine the delivered price, there must be added to the factory price of a given manufacturer, the cost of transportation to the point of delivery. Prompt quotation of a delivered price therefore involves the ability to carry out promptly the mechanical process of adding, to the mill price, the cost of transportation to the point of

delivery. Lists of freight rates, in convenient and readily available form, are, therefore, necessary adjuncts to the quotation of delivery prices for cement.

The use of basing points for the purpose of computing freight rates appears not to have been the result of any collective activity on the part of defendants or cement manufacturers generally, nor were they arbitrarily selected. Their use is rather the natural result of the development of the business within certain defined geographical areas. When a manufacturer establishes his factory at a given point of production and sells his product in a territory which is contiguous freightwise to his factory, other mills established in the vicinity and serving the same territory, in order to compete in that territory, must either secure a like freight rate, or they must sell at a mill price which will permit them to deliver cement at a price which will enable them to compete with the mill or mills located at the basing point, which is the principal point of production in the territory which is contiguous in point of freight rate to the basing point. If such competing mills secure the same freight rate through the adoption of a blanket freight rate by the Interstate Commerce Commission, as was done in the Lehigh Valley, the rate from the basing point would in every case be identical with the freight rate for the competing mills. If there were no blanket freight rate, the competing mills must still use the rate from a given basing point in order to compete with the mills located in the vicinity of that chief point of production. In either case the freight rate from the basing point is an essential element in making a delivered price, since selling by any particular manufacturer at the lowest of the delivered prices computed from several basing points is a necessary procedure in competing in the sale of cement. The freight rate book, therefore, not only enables the manufacturer to calculate a delivered price on the basis of his own mill price, which he determines, to points in the territory nearest in point of freight rate to his own mill, but it enables him also to determine at once the freight differential which he must offset in his mill price in order to compete with other manufacturers serving any other given territory.

Exchange of Information Concerning Credits

Members of the association render monthly reports of all accounts of customers two months or more overdue, giving the name and address of the delinquent debtor; the amount of the overdue account in ledger balance; accounts in hands of attorneys for collection and any explanation, as, for example, when the account was treated by the debtors as offset of a balance due for bags, or was otherwise disputed. There are also reports showing the general total of delinquent accounts in comparison with those for the last 12 months and reports of payments of accounts placed in the hands of attorneys. There was a form, seldom used, for answering inquiries as to whether a particular name had appeared in the monthly report, and, if so, where. There were never any

comments concerning names appearing on the list of delinquent debtors. The government neither charged nor proved that there was any agreement with respect to the use of this information or with respect to the persons to whom or conditions under which credit should be extended. The evidence falls far short of establishing any understanding on the basis of which credit was to be extended to customers, or that any cooperation resulted from the distribution of this information, or that there were any consequences from it other than such as would naturally ensue from the exercise of the individual judgment of manufacturers in determining, on the basis of available information, whether to extend credit or to require cash or security from any given customer.

Statistical Information

The statistical activities of the association, other than those relating to specific job contracts which have already been referred to, dealt with information as to existing supplies of cement and the so-called bag report which gave information concerning returned bags which are the usual containers in which cement is shipped and delivered.

Each member of the association, in addition to the reports on specific job contracts already referred to, sends to the association a monthly statement of its production of clinker and ground cement, shipments, and stock on hand for the past month and for the corresponding periods of the previous year. These were compiled and distributed to members without any change or comment. In addition, semimonthly statements of shipments were also received and likewise distributed. Each member of the association was thus given full information as to the available supply of cement and by whom it was held.

By universal practice, the price of bags in which cement is shipped is included and becomes a part of the mill base price. This is usually at the rate of 10 cents per bag. The bag reports were made quarterly and contained two items: the total number of bags returned by each member during the preceding quarter, and the percentage thereof found unfit for use. The reports show that the loss varied from about ¾ of 1% by one manufacturer to about 4½% by another, and the diversity continued throughout the period covered by the reports.

In 1918 a questionnaire was sent out inquiring as to the practice of each company to determine whether better results were obtained by cleaning before or after counting, showing that some counted before cleaning and some after cleaning, and some both before and after. No information was reported concerning the charge and allowance or deposit for bags returned, or concerning the number received from any particular customer, or the portion found unfit for use.

Meetings

The constitution and by-laws of the association provided for monthly meetings. A full and accurate stenographic report of all discussions at meetings was kept and made available to the government, and, as is stated in the government's brief:

The association's counsel was present at every meeting to steer the discussions away from illegal subjects and to have them confine the matters strictly within the purview of the by-laws and the constitution of the association.

During the only period of rising markets since the relinquishment of war control, the spring and summer of 1920, no meetings were held during July and August. The later minutes contained complaints at smallness of attendance and the number of companies represented at meetings varied from 11 to 17, with an average attendance of about two-thirds of the total membership of 19 corporations. There was no discussion at these meetings of current prices; no comment on conditions or as to prospect of market, production, or prices. Excerpts from the minutes are set out by the government's brief at great length indicating that from time to time individual representatives of the companies expressed themselves on subjects of minor importance; such as return of bags, and bag reports; discounts; the use of trade acceptances where customers desired more than the customary 30 days' discount. But with reference to these suggestions and discussions, either no action was taken, or action was taken adverse to the suggestions made. There is no evidence that any agreement was reached affecting any of the matters discussed; nor does the government point specifically to any uniformity of trade practice or custom followed, which is urged as even inferentially the result of activities at meetings.

Legal Consequence of Defendants' Activities

From these various activities of the defendants, the government deduces a purpose to control the price of cement which it is charged was to be accomplished by the control of the supply of cement on the market and by intimate association of the defendants in the exchange of information and a ready means of quoting a delivered price at any point. Cement was to be kept from the market by the use of the specific job contract accompanied by the systematic gathering and reporting of information with reference to the specific jobs and the amount of cement required for their completion. The two essential elements in the conspiracy to restrain commerce charged therefore are: (*a*) The gathering and reporting of information which would enable individual members of the association to avoid making deliveries of cement on specific job contracts which by the terms of the contracts they are not bound to deliver; and (*b*) the gathering of information as to production, price of cement sold on specific job contracts, and transportation costs not differing essentially from similar information disseminated by the Maple Flooring Association which is the subject of the opinion in *Maple Flooring Manufacturers' Association, et al.* v. *United States,* 268 U.S. 563, 45 Sup. Ct. 578, 69 L. Ed. 1093, decided today.[3]

That a combination existed for the purpose of gathering and distributing these two classes of information is not denied. That a con-

[3] See page 70.

sequence of the gathering and dissemination of information with respect to the specific job contracts was to afford, to manufacturers of cement, opportunity and grounds for refusing deliveries of cement which the contractors were not entitled to call for, an opportunity of which manufacturers were prompt to avail themselves, is also not open to dispute. We do not see, however, in the activity of the defendants with respect to specific job contracts any basis for the contention that they constitute an unlawful restraint of commerce. The government does not rely on any agreement or understanding among members of the association that members would either make use of the specific job contract, or that they would refuse to deliver "excess" cement under specific job contracts. Members were left free to use this type of contract and to make such deliveries or not as they chose, and the evidence already referred to shows that in 1920 padded specific job contracts were cut down something less than two-thirds of the total amount of the padding as a result of the system of gathering and reporting this information. It may be assumed, however, if manufacturers take the precaution to draw their sales contracts in such form that they are not to be required to deliver cement not needed for the specific jobs described in these contracts, that they would, to a considerable extent, decline to make deliveries, upon receiving information showing that the deliveries claimed were not called for by the contracts.

Unless the provisions in the contract are waived by the manufacturer, demand for and receipt of such deliveries by the contractor would be a fraud on the manufacturer, and in our view the gathering and dissemination of information which will enable sellers to prevent the perpetration of fraud upon them, which information they are free to act upon or not as they choose, cannot be held to be an unlawful restraint upon commerce, even though in the ordinary course of business most sellers would act on the information and refuse to make deliveries for which they were not legally bound.

In *Swift & Company* v. *United States*, 196 U.S. 375, 395, 25 Sup. Ct. 276, 279, 49 L. Ed. 518, this court approved a decree which provided that defendants should not be restrained "from establishing and maintaining rules for the giving of credit to dealers where such rules in good faith are calculated solely to protect the defendants against dishonest or irresponsible dealers." Distribution of information as to credit and responsibility of buyers undoubtedly prevents fraud and cuts down to some degree commercial transactions which would otherwise be induced by fraud. But for reasons stated more at length in our opinion in *Maple Flooring Manufacturers' Association, et al.* v. *United States, supra,* we cannot regard the procuring and dissemination of information which tends to prevent the procuring of fraudulent contracts or to prevent the fraudulent securing of deliveries of merchandise on the pretense that the seller is bound to deliver it by his contract, as an unlawful restraint of trade even though such information be gathered

and disseminated by those who are engaged in the trade or business principally concerned.

Nor for the reasons stated, can we regard the gathering and reporting of information, through the cooperation of the defendants in this case, with reference to production, price of cement in actual closed specific job contracts and of transportation costs from chief points of production in the cement trade, as an unlawful restraint of commerce; even though it be assumed that the result of the gathering and reporting of such information tends to bring about uniformity in price.

Agreements or understanding among competitors for the maintenance of uniform prices are, of course, unlawful and may be enjoined, but the government does not rely on any agreement or understanding for price maintenance. It relies rather upon the necessary leveling effect upon prices of knowledge disseminated among sellers as to some of the important factors which enter into price. It is conceded that there is a substantial uniformity of price of cement. Variations of price by one manufacturer are usually promptly followed by like variation throughout the trade. As already indicated, the larger proportion of the product of the defendants is distributed through dealers, and prices to dealers are not reported to or through the association. It is contended by the government that the report of prices on specific job contracts in effect informs the members of the association of prices to dealers, since the differential allowed to dealers is well known in the trade. However this may be, the fact is that any change in quotation of price to dealers, promptly becomes well known in the trade through reports of salesmen, agents, and dealers of various manufacturers. It appears to be undisputed that there were frequent changes in price, and uniformity has resulted not from maintaining the price at fixed levels, but in the prompt meeting of changes in prices by competing sellers.

It is urged by the defendants that such uniformity of price as existed in the trade was due to competition. They offered much evidence tending to show complete independence of judgment and of action of defendants by large expenditures in competitive sales efforts and by variations in the volume of their production and shipment, earnings and profits. A great volume of testimony was also given by distinguished economists in support of the thesis that in the case of a standardized product sold wholesale to fully informed professional buyers as were the dealers in cement, uniformity of price will inevitably result from active, free and unrestrained competition, and the government in its brief concedes that:

> Undoubtedly the price of cement would approach uniformity in a normal market in the absence of all combinations between the manufacturers.

We realize also that uniformity of price may be the result of agreement or understanding, and that an artificial price level not related to the supply and demand of a given commodity may be evidence from which such agreement or understanding or some concerted action

of sellers operating to restrain commerce may be inferred. But here the government does not rely upon agreement or understanding, and this record wholly fails to establish, either directly or by inference, any concerted action other than that involved in the gathering and dissemination of pertinent information with respect to the sale and distribution of cement to which we have referred, and it fails to show any effect on price and production except such as would naturally flow from the dissemination of that information in the trade and its natural influence on individual action.

For reasons stated in *Maple Flooring Manufacturers' Association, et al.* v. *United States, supra,* such activities are not in themselves unlawful restraints upon commerce and are not prohibited by the Sherman Act.

The judgment of the District Court is reversed.

Mr. Chief Justice TAFT, Mr. Justice SANFORD, and Mr. Justice McREYNOLDS dissent.[4]

CEMENT MANUFACTURERS' PROTECTIVE ASSOCIATION, *et al. v.* UNITED STATES[5]

MAPLE FLOORING MANUFACTURERS' ASSOCIATION, *et al. v.* UNITED STATES[6]

(June 1, 1925)

Mr. Chief Justice TAFT and Mr. Justice SANFORD dissent from the opinions of the majority of the court in these two cases on the ground that in their judgment the evidence in each case brings it substantially within the rules stated in the American Column Company Case, 257 U.S. 377, 42 Sup. Ct. 114, 66 L. Ed. 284, 21 A.L.R. 1093, and American Linseed Oil Company Case, 262 U.S. 371, 43 Sup. Ct. 607, 61 L. Ed. 1035, the authority of which, as they understand, is not questioned in the opinions of the majority of the court.

The separate opinion of Mr. Justice McREYNOLDS:

These cases disclose carefully developed plans to cut down normal competition in interstate trade and commerce. Long impelled by this purpose, appellants have adopted various expedients through which they evidently hoped to defeat the policy of the law without subjecting themselves to punishment.

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[4] For dissenting opinion, see below. For commentary, see page 97.

[5] Supreme Court of the United States. Argued March 3-5, 1925. Decided June 1, 1925. 45 Sup. Ct. 586. See page 85, above.

[6] Supreme Court of the United States. Reargued March 3, 1925. Decided June 1, 1925. 45 Sup. Ct. 578. See page 70, above.

They are parties to definite and unusual combinations and agreements, whereby each is obligated to reveal to confederates the intimate details of his business and is restricted in his freedom of action. It seems to me that ordinary knowledge of human nature and of the impelling force of greed ought to permit no serious doubt concerning the ultimate outcome of the arrangements. We may confidently expect the destruction of that kind of competition long relied upon by the public for establishment of fair prices, and to preserve which the Anti-Trust Act was passed.

United States v. *American Linseed Oil Company,* 262 U.S. 371, 43 Sup. Ct. 607, 67 L. Ed. 1035, states the doctrine which I think should be rigorously applied. Pious protestations and smug preambles but intensify distrust when men are found busy with schemes to enrich themselves through circumventions. And the government ought not to be required supinely to await the final destruction of competitive conditions before demanding relief through the courts. The statute supplies means for prevention. Artful gestures should not hinder their application.

I think the courts below reached right conclusions, and their decrees should be affirmed.

COMMENTARY: The legal principles stated both in the prevailing and in the dissenting opinions are quite familiar to the business man, but the cases illustrate the dictum of Mr. Justice Holmes in another case to the effect that general propositions do not decide concrete cases.[7] Just what kinds of cooperation among members of trade associations are possible without violating the anti-trust laws has in recent years been puzzling the business world. These two decisions have, accordingly, been greeted with enthusiasm by the promoters of trade organizations. They must not be taken to mean that the methods here declared harmless in themselves cannot in combination with other circumstances make out a case for the government, but they do go far to establish that the advantages of competition to which the public is entitled under the law do not include a vested interest in the ignorance of the competitors of each other's affairs or of the general state of the market. There is suggested, rather than stated, in Mr. Justice Stone's opinions, the fact that some of the types of information to the distribution of which the government objected, could be assembled and had been assembled by the larger concerns before the days of trade associations. The book of freight rates is an example. To shut off the smaller concerns from access to such information and leave it open only to the powerful competitors would hardly be a movement away from monopoly and restraint of trade. It is not the gathering

[7] *Lochner* v. *New York* (1905), 198 U.S. 45, 76.

and dissemination of pertinent information that is unlawful—the United States Government carries out very similar projects—but, as expressed by Mr. Justice Stone in the opinion on the Maple Flooring Manufacturers' Association case (see page 82), "restraint upon free competition begins when improper use is made of that information through any concerted action which operates to restrain the freedom of action of those who buy and sell."

We must not, however, overlook the difficulty of determining whether or not an improper use has been made of the information. The opinion of Mr. Justice McReynolds reminds us that "pious protestations and smug preambles" as well as "artful gestures" should not disarm distrust when men are busy with circumventions. A careful avoidance of the announcement of an agreement may coexist with a conspiracy. But the point in this case is that the government has not proved either a conspiracy or the inevitable tendency of the acts complained of to restrain trade unreasonably. Even if a tendency to stabilize prices and production can be predicated on the basis of "ordinary knowledge of human nature and of the impelling force of greed" or even demonstrated as a result of the gathering and dissemination of the information complained of, such stabilization, according to Mr. Justice Stone, cannot be called an unreasonable restraint of trade, or in any respect found unlawful.

There can be little doubt that the view here expressed by the Supreme Court of the nature and workings of competition, or, to use the phrase of the dissenting opinion, "that kind of competition long relied upon by the public for establishment of fair prices, and to preserve which the Anti-Trust Act was passed," differs from a view sometimes expressed, but more often assumed, that many subtle elements, including the doubts and fears of the trader, are just as essential in effective competition as the conscious, deliberate comparison of one's own wares with another's—but in this connection it should be borne in mind that even without the aid of trade associations, instrumentalities have been developed in modern business to remove as many of the doubts as possible. It may be said, at least, that the conditions of actual business tend to approach the conception held out by Mr. Justice Stone.

May, 1926

N. I.

Colton Card Company[1]

MANUFACTURER—GREETING CARDS

Trade Associations—*Objection to Independent Advertising by Member.* A company manufacturing greeting cards and novelties was a member of the Greeting Card Association, an organization supported by all the important producers of greeting cards in the United States. The association advertised greeting cards extensively, but in the advertisements did not mention the names of its members. In advertising its novelties to consumers, the company mentioned the fact that it also sold greeting cards. Although the association's by-laws did not prohibit independent advertising by members, many of the members objected to the company's advertisements. The company wished to support the association because it had reduced the company's advertising expense and eliminated cut-throat competition in the trade. Consequently, rather than risk being forced to withdraw from the association, the company decided to exclude all mention of greeting cards from its advertisements.

Advertising—*Brand Discrimination Prevented by Consumers' Buying Motives—(Commentary).* A company manufacturing greeting cards and novelties was a member of an association which advertised greeting cards extensively but which did not mention the names of its members in its advertisements. Because of objections by other members of the association, the company refrained from advertising its greeting cards independently. The commentator points out that, aside from its relations with other members, the company was not justified in advertising its cards to consumers, since the buying motives for cards are such that brand discrimination would have been difficult to effect.

(1922)

The Greeting Card Association, a national organization to which all the important producers of greeting cards in the United States belonged, had been formed for the purpose of standardizing practices in the trade. Before the formation of the association, manufacturers had recognized no definite time for the opening of the Christmas card season, and each manufacturer had attempted to display his samples a day or so before competitors displayed theirs. The association had fixed upon February 1 as the opening date, and all members were prepared to show their new samples on that date.

The Greeting Card Association inserted full-page advertisements each month in women's magazines and general magazines

[1] Fictitious name.

with national circulation. The advertising done by the association was for the purpose of educating the public to a more extensive use of greeting cards. No mention of the members of the association was made in the advertisements. Members contributed to the association on the basis of their sales of greeting cards. One per cent of sales was the assessment for firms with annual sales of $25,000 or more. Firms with sales of less than $25,000 paid the minimum assessment of $250 a year. The member with the largest sales contributed approximately $10,000 annually.

Although there was nothing in the by-laws of the association to prohibit independent national advertising of greeting cards by members, no member prior to 1922 had advertised cards nationally. In that year, however, the Colton Card Company, one of the five largest members of the association, engaged in some national advertising of greeting cards. Other members of the association objected to this independent advertising, and it was necessary for the Colton Card Company to decide whether or not to discontinue the advertising.

In addition to the greeting cards which it manufactured, the Colton Card Company sold novelties, such as letter openers, lemon forks, and card cases, put up in gift boxes. The company did not manufacture the novelties, but it did prepare the gift boxes, printing them with appropriate verses.

The company sold directly to retailers. In 1921, its 30 salesmen made sales to approximately 6,500 stationery and gift shops throughout the United States. A few retailers mailed their orders to the company. The salesmen received a commission of 15% on gross sales. The company's prices allowed retailers a gross margin of about 50% on greeting cards and of about 40% on gift boxes. The salesmen solicited orders for Christmas cards during February, March, and April; the company produced and shipped the Christmas cards during the summer, usually receiving payment for them in January of the following year. The credit terms for gift boxes and for cards other than Christmas cards were 2% 10 days, net 30 days, but most of the retailers took 60 days. The credit losses of the company were less than 1% of gross sales. The company's competitors, most of whom specialized in greeting cards, also sold to retail stationers and gift shops through traveling salesmen.

Sales of the Colton Card Company in 1920 and 1921 had been:

	1920	1921
Gift box sales	$455,000	$ 456,000
Greeting card sales	450,000	600,000
Total sales	$905,000	$1,056,000

The company's contributions to the Greeting Card Association in those years, consequently, were $4,500 in 1920, and $6,000 in 1921. The company had been a member of the association since 1918.

In June, 1922, the Colton Card Company engaged an advertising agency to plan an advertising campaign for its gift boxes, sales of which had grown less rapidly than had sales of cards. The company had appropriated $20,000 to be used for advertising during October and November, 1922. Acting upon the advice of the advertising agency, the company contracted for full-page advertisements in the October 15 issue of *Vogue*; in the October 25 issues of the *Review of Reviews,* the *World's Work, Scribner's, Harper's,* and the *Atlantic Monthly*; and in the November 20 issues of *Modern Priscilla* and *Good Housekeeping*; the company also contracted for a column in the November 1 issue of the *Ladies' Home Journal.* The advertisements were to feature the gift boxes, but were to mention incidentally that the company also sold greeting cards. Coupons were to be included in the advertisements, and the company planned to mail booklets showing Christmas cards and gift boxes to persons who sent in the coupons. The company also contracted for a three-inch advertisement of a special 50-cent box of Christmas cards in the *Ladies' Home Journal* of November 1. It was the company's plan to advertise greeting cards more extensively in 1923.

At a convention of the members of the Greeting Card Association held in the third week of October, 1922, the Colton Card Company was criticized for advertising greeting cards. Several of the association members, including the largest one, accused the company of attempting to gain unfair advantage over competitors by inserting advertisements of greeting cards in the publications used by the Greeting Card Association. An executive of the Colton Card Company stated that there was nothing in the bylaws of the association to prohibit independent advertising of greeting cards by members. Several of the members, including the president of the association, replied that there was an implied

agreement that members would not advertise greeting cards independently.

In the fall of 1922, for the purpose of stimulating discussion of the question, the Colton Card Company wrote to one of the leading advertising trade papers asking its opinion as to whether a contributor to an association for cooperative advertising should advertise independently. In answer to the letter, the paper printed an article which stated that associational advertising campaigns rarely were sufficient to give an industry all the publicity required, and that some cooperative advertising campaigns failed because they were not supported by the individual advertisements of the members. The advertising paper held that the more advertising an industry received, both cooperatively and individually, the more business there would be for all members of the industry. The article stated that some cooperative associations made every effort to induce contributing members to publish advertisements over their own names, and cited instances of individual advertising by members of the paint and varnish associations, the association of davenport bed makers, the vacuum cleaner association, and the association of coffee manufacturers.

Because of the possibility that it would be forced to withdraw from the Greeting Card Association if it continued to advertise greeting cards independently, the Colton Card Company decided to eliminate from its advertisements all references to cards. The company believed that it should support the association, inasmuch as the association's advertising had decreased the company's advertising expenditures, and since it was possible that the com-

Exhibit I

Sales and Advertising Expenditures of the Colton Card Company, 1922-1924

	1922	1923	1924
Gift box sales	$ 430,000	$ 532,000	$ 465,000
Greeting card sales	800,000	900,000	1,200,000
Total sales	$1,230,000	$1,432,000	$1,665,000
Company's own advertising	20,000	20,263	6,127
Contributions to Greeting Card Association advertising	8,000	9,000	12,000
Dealer helps	11,086	29,993	42,753

pany's withdrawal would weaken the association and lead to a renewal of cut-throat competition.

The sales of the Colton Card Company and the amounts which it devoted to advertising and to dealer helps during 1922, 1923, and 1924, are given in Exhibit 1.

In 1924, the Colton Card Company's largest competitor stated that it intended to advertise greeting cards during the fall of that year. Despite the fact that the Colton Card Company raised no objection, the competing company changed its plans and did no greeting card advertising. The other members of the Greeting Card Association still were averse to independent advertising by members.

Commentary: Entirely aside from the question of relations with other members of the Greeting Card Association, whether the Colton Card Company should have advertised its greeting cards to consumers in general magazines can be determined largely by an analysis of the product which was sold and of the buying habits of consumers. It is the belief of the writer that brand discrimination for the greeting cards of this company was a difficult, if not an impossible, thing to effect, and that accordingly advertising to the consumer was not justified.

Greeting cards represent an extreme example of merchandise purchased on the basis of personal selection. The purchaser is motivated entirely by his desire to select an appropriate gift or remembrance card. His buying habit is to look over a selection of cards and to take those which in design, verse, and general appearance most nearly meet his desires. There are no qualities outside of these, all of which he can judge at the time of purchase, which would motivate him in the selection of cards. Brand as a means of indicating qualities would mean little or nothing, because the purchaser is in a position to determine the qualities from inspection. In addition, it would be a difficult thing to put the brand mark on the cards attractively.

Since the buying habits and buying motives of consumers were such that brand discrimination would have been very difficult to effect, it is concluded that the Colton Card Company was not justified in a consumer advertising campaign.

General advertising to consumers by the Greeting Card Association upon the use of greeting cards, with appeals to primary motives, was an entirely different matter. Whereas individual companies could not hope successfully to make an appeal to selective buying motives in order to induce purchase of particular brands, the association, by appealing

to primary motives, could hope to influence people to make use of greeting cards and thus increase the demand for cards.

The efforts of individual companies such as the Colton Card Company should have been directed first to developing the most attractive cards possible, and next to establishing in the trade the reputation of having a selection of cards which would appeal to consumers.

July, 1926 N. H. B.

Reckford Company *v.* Selby Company[1]

Purchasing—*Refusal to Accept Goods Because of Inferior Quality.* Because part of certain rubber sold as a "specific lot" was not equal to sample in quality, a fact which was admitted by the seller, the buyer rejected tender of the entire lot. The question whether the seller could, under the rules of the Rubber Trade Association of New York, force the buyer either to accept the lot with an allowance or to accept such portion of the lot as was of proper quality, was submitted to arbitration. The arbitrators held that General Rule 2 of the association, giving a seller the privilege of making good a defect in goods, provided it did not exceed a stated standard, was superseded by General Rule 7, providing that when rejection of a "specific lot" was made and was either accepted by the seller or sustained by the quality panel, the contract was to be considered as void. In view of the seller's admission that the rubber delivered was inferior to the quality called for in the contract, the arbitrators awarded that the rejection by the buyer was sustained and that the contract was to be considered as void.

(1924)

Nature of the Dispute

There is raised here the issue of whether the seller of a "specific lot" of rubber, part of which is not up to sample in quality, can, under the rules of the Rubber Trade Association of New York, force the buyer either to accept the lot with an allowance or to accept such portion of the lot as is of proper quality.

Positions of the Parties

The Reckford Company, Claimant, sold to the Selby Company, Respondent, 75 cases of rubber on sample as a "specific lot." When the rubber was tendered, it was found on examination to include a small percentage of cases containing "damp or wet mold" which was not shown in the original sample. This defect in quality was admitted by the Reckford Company, the seller. Because of this defect in the quality of a portion of the lot, the Selby Company, the buyer, rejected the tender of the entire lot.

The Reckford Company contends that the grade of rubber sold comes under Rule 2 of the rules of the Rubber Trade Association of New York (see Rule 2 appended to this case); and

[1] Fictitious names. This case is part of a series made available through the cooperation of the American Arbitration Society. Docket No. 851 (1924).

since the rubber in question is not of standard grade, that it cannot be rejected by the Selby Company unless it is 2 cents per pound inferior to the grade called for on the contract—rather an allowance must be accepted.

The Reckford Company feels that the lot as a whole is not 2 cents a pound inferior to the grade called for and that therefore the entire lot cannot be rejected but must be taken at an allowance. The Reckford Company has therefore agreed to sort the entire lot and leave out of the delivery any rubber containing damp or wet mold.

The Selby Company, the buyer, contends that Rule 7 takes precedence over Rule 2 as applied to the facts of this case. Rule 7 provides that when the contract definitely stipulates that the rubber is sold on a "specific lot" and rejection is made and is either accepted by the seller or sustained by the quality panel, the contract is to be considered as void.

The Selby Company argues that there is in question here a "specific lot" of rubber; when the same is rejected by the buyer because of the inferiority of the rubber (no matter how small), and when this rejection is sustained by the quality panel or admitted by the seller, the contract is to be considered as void.

The buyer feels that in sales of rubber on "specific lot" it would be inequitable to let the seller reassort a parcel containing inferior rubber and retender without the buyer's consent, because he would then be making a tender of a wholly different lot.

A representative of the Selby Company testified at the hearing that in a similar contract he requested the broker to insert the phrase "rejection constitutes delivery" and that he was informed that this was not necessary under the new rules; that if a "specific lot" was rejected, the buyer would not have to take it with an allowance.

At the end of the hearing it was admitted by both parties that the issues in dispute were, first, whether the buyer was justified in rejecting, and second, if the buyer was justified in rejecting, whether the seller had the right to sort the rubber, remove the objectionable rubber, and make a new tender.

Award of the Arbitrators

The Arbitrators find that the parcel involved was sold "on sample as a specific lot—in case of rejection no replacement."

The claim of the Seller that General Rule 2 governs if the rubber

is less than 2 cents per pound inferior is not sustained by the Arbitrators. On the contrary, the Arbitrators are convinced that General Rule 2 is superseded by General Rule 7.

Neither do the Arbitrators affirm the claim of the Seller to the right to sort the parcel and deliver to the Buyer that portion thereof which is conceded to be equal to the quality called for in contract, replacing the underdelivery with contract quality.

The Arbitrators' construction of General Rule 7 is that the Buyer must accept the parcel first tendered in its entirety or reject it. The Arbitrators find no provision therein giving the Seller or the Buyer the right to insist upon acceptance at an allowance, nor any stipulation permitting the Seller to make, or granting the Buyer the right to demand, delivery of the Rubber of proper quality contained in the parcel after it has been sorted at the expense of the Seller. Certainly, if both General Rule 2 and General Rule 7 were applicable, proper reference would have been made to this fact in the latter rule rather than indicating therein that a tender under a specific lot contract is in the same category, so far as quality is concerned, as a tender of standard quality, that is, it must be accepted or rejected without any question of allowance.

The Arbitrators, therefore, award, in view of the admission of the Seller that the parcel is inferior to the quality called for in the contract, that the rejection of the Buyer is sustained and further that the contract is to be considered as void.

Arbitration fee and stenographic costs for the account of the Reckford Company.

Rules of the Rubber Trade Association of New York, Inc.

Rule 2

OTHER THAN STANDARD QUALITY CONTRACTS

Where a parcel of rubber is sold with a description of quality other than specified in Rule 1, and upon delivery is found inferior, then the buyer must accept same with an allowance, provided such allowance is not more than one-half (½) cent per pound on No. 1, 2, 3, and 4 Blanket Crepe and "Clean Brown," and two (2) cents per pound on other grades. On "Clean Brown," however, it is to be understood that the buyer shall have the right to reject if the rubber is not free from all foreign matter such as specks, bark, or cotton.

Should the parcel, or any portion tendered, be rejected, the quantity rejected shall not constitute a delivery on the contract.

If a rejection is received during the last three days of the delivery month, the seller shall have three business days to make a new tender. Should the seller elect to make this new tender in the subsequent month, but within the three-day period required, this tender shall be final. If, however, a tender made during the delivery period specified in the contract is rejected after expiration of that time, the seller shall have three business days to make final replacement.

In the absence of a proper tender within the time hereinbefore stated, General Rule 11 shall apply.

Rule 6

DELIVERY WEIGHTS

General Rule 37 shall apply except on "Specific Lots" and the following:

On rubber, where the size of the packages, such as casks, does not permit of accurate delivery of the weight contracted for, the contract shall be considered completed if the excess of deficiency does not exceed 2½% of the contract weight. Should the excess or deficiency exceed 2½% the entire excess or deficiency shall be liquidated at the price prevailing on the day of delivery.

Rule 7

SPECIFIC LOTS

When the contract definitely stipulates that the rubber is sold as a specific lot and the rubber is found to be inferior, the buyer shall either accept or reject the whole parcel and neither the seller nor the buyer can demand acceptance of the whole or part of the rubber at an allowance. If the rejection is accepted by the seller or sustained by the Quality Panel, the contract is to be considered as void.

Any underdelivery or overdelivery under a contract of this nature shall be settled in accordance with Rule 6.

Rule 11

DEFAULT

Whenever a seller fails to tender within contract time he shall be considered in default at the price prevailing at 5 p.m. (Saturday 12 o'clock noon) on the last day tender was due (in accordance with General Rule 1 or 2, whichever applies). It shall be the duty of the buyer to invoice back the rubber to the seller within two business days, at the above price, plus liquidated damages of 2%, but not less than one-half cent per pound, seller to be credited with the value of the rubber at the contract price. The net difference shall be due and payable immediately. The Clearing Department prices of record shall govern. If the quality sold is an off-grade and the price is not recorded by the Clearing Department, arbitrators shall be appointed to settle the price. In such latter instances, however, the buyer must forward notice of default within two business days as is required above.

If default is not admitted by seller, but is confirmed by arbitration, the highest Clearing Department price of record in the interim between the date of actual default and the date final decision is rendered shall govern.

The Arbitrators or the Arbitration Committee shall have the right in all cases to designate such liquidated damages above one-half cent

per pound, and not in excess of 10% of the prevailing price, as in their opinion may be warranted, provided, however, that the failure of the buyer to submit invoice or default notice within two business days, as stated in the first paragraph hereof, may, within the discretion of the arbitrators or the Arbitration Committee, cancel such buyer's right to a claim for liquidated damages, but shall not affect the default equity. If for any reason other than failure to tender within time buyer contends seller is in default the same procedure must be followed.

If no action is taken by either party as hereinbefore required and arbitration is not called for by either the buyer or seller within 30 days after the expiration of last possible tender day, the contract shall be considered as void. Failure of the buyer or seller to invoice for underdelivery or overdelivery within the 30-day limit stated shall also preclude the right of either party to invoice for default difference and/or liquidated damages.

DEFAULT ON SHIPMENT OR C.I.F. CONTRACTS

Whenever the seller shall admit that he has failed to fulfill the terms of his contract, the buyer shall close by invoicing back the rubber to the seller at once at the Clearing Department price of record on the date default occurs. To the aforesaid price a liquidated damage of not less than 2% shall be assessed against the seller, the difference to be due in cash. If seller and buyer fail to agree on the amount of the liquidated damage, the same shall be fixed by arbitration.

Should default not be admitted by seller, but is so awarded by arbitration, the rubber shall be invoiced back to the seller at the Clearing Department price of record on the date default is established, plus a liquidated damage of not less than 5%.

In the event the quality called for be one the price of which is not recorded by the Clearing Department, then the price, together with the liquidated damage, shall be fixed by arbitration.

COMMENTARY: The arbitrators in this case were called upon to answer a question of interpretation of the rules of the Rubber Trade Association. Two rules were on the face of them inconsistent with each other: one giving a seller the privilege of making good a defect in the goods, provided it did not exceed a certain standard; the other giving the buyer the right to reject the defective goods *in toto* "where goods are sold in specific lots." In other words, of the remedies for breach of warranty given to a buyer in the absence of a specific contract to the contrary (compare Sales Act, Section 69), one was taken away by the rule of the association, and the option to reject or demand recoupment on the part of the seller was displaced by a duty to accept subject to recoupment. The other rule, dealing with "specific lots," seemed to make the alternative merely to accept or reject the goods. The arbitrators took the view that the specific lots were not intended

to be subject to the rule which permitted the seller to make good.

There is a peculiar difference, however, between the argument presented by the winning side and the reasoning of the arbitrators. The former argues on the basis of the realities of the business that a reassorted lot or one made good in any other way is not the same thing as the "specific lot" bargained for. This point may or may not be important in particular trades. The arbitrators, on the other hand, took a rather legalistic view of the wording of the rules: "Certainly, if both General Rule 2 and General Rule 7 were applicable, proper reference would have been made to this fact in the latter rule . . . . " It must be borne in mind that these rules are generally not drawn with sufficient care to stand the strain of such interpretation and that the giving of particular options or remedies to a disappointed buyer does not as a matter of legal logic compel the exclusion of other remedies or limitations upon remedies such as those enumerated in the Sales Act, Sections 66-70.

November, 1927

N. I.

TRUXTON COMPANY *v.* SCARVER COMPANY[1]

PURCHASING—*Payments—Deduction for Seller's Alleged Overcharge.* A company which had placed a rush order for 10,000 envelopes with a stationery company learned, before making payment, that envelopes of the type ordered were generally $3 per thousand cheaper than the agreed price. The buyer therefore deducted $30 from the bill when making payment. When the matter was submitted to arbitration, the seller explained that the price was higher than usual because the envelopes ordered were of an odd size, necessitating overtime work. The arbitrators awarded that the buyer must remit the $30.

(1926)

NATURE OF THE DISPUTE

The Truxton Company claims $30 which it alleges was unjustly deducted from its bill when the same was paid by the Scarver Company. The Scarver Company alleges that the bill of the Truxton Company was excessive by the amount of $30 and, therefore, it was justified in deducting this amount.

STATEMENT OF FACTS

On September 21, 1926, a representative of the Truxton Company, which dealt in stationery of various kinds, called upon the Scarver Company and quoted a price on envelopes of the button and string type. Mr. Ross, of the Scarver Company, gave an order for 10,000 of these envelopes to be delivered as soon as possible. Part of this order was delivered the following day. After the order was completed and delivered, however, Mr. Ross, of the Scarver Company, telephoned the Truxton Company and said that his company had made a mistake—that his customer wanted gummed and flap envelopes rather than the button and string type. At this time, Mr. Ross, of the Scarver Company, inquired the price of the gummed and flap envelopes and was informed that it would be the same as for the button and string type, whereupon an order was given for 10,000 of the gummed and flap type.

After the Truxton Company presented its bill to the Scarver

[1] Fictitious names. This case is part of a series made available to the School through the cooperation of the American Arbitration Society. Docket No. 754 (1926).

Company, the Scarver Company secured estimates from other envelope companies and Mr. Ross stated to the Arbitration Board that from these quotations he found that the gummed flap envelopes were generally $3 per thousand cheaper than the button and string type and that, therefore, he deducted $30 ($3 per thousand on 10,000) from the bill of the Truxton Company when making his remittance.

Mr. James, of the Truxton Company, stated that a price was submitted to the Scarver Company and that an order followed. He explained that the price was higher than usual in view of the fact that it was a rush order and that since the envelopes were of an odd size it necessitated overtime work on the part of the factory.

Award of the Arbitrators

The Scarver Company must pay $30 in addition to its former remittance to the Truxton Company.

Commentary—A: As a strict matter of law there cannot, of course, be any doubt of the correctness of the arbitrators' decision in this case. The price was submitted, on the basis of which an order followed and was accepted: the contract stands. In law, it is immaterial whether the price agreed upon was above or below the regular market price or whether it compared in the ordinary way to other prices quoted by the same company.[2] Yet it is interesting to see that the claimant did not take his stand on the ground of law, but undertook to justify charging a higher price than the usual one by the fact "that it was a rush order and that since the envelopes were of an odd size . . . . overtime work on the part of the factory" was necessitated. The issue, in other words, was *felt* to be not merely a question of law but, rather, of law tempered with business ethics and trade customs or general market standards. What was felt to be the subject of arbitration was not a question of what contract had been made but, rather, one of what the contract should have been. It is, however, not quite clear from this submission or from the award that this feeling was quite articulately given effect.

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Commentary—B: Neither company in this dispute should have looked upon the carrying out of the award as the final phase of the incident. Though the amount claimed was small, the facts so far as

[2] *Williston on Contracts,* Sec. 115; cf. 6 *Cornell Law Quarterly* 383 ff. on the absence of a doctrine of *laesio enormis* in Anglo-American law.

given in the case indicate that revisions were needed in the buying and selling practices of both companies.

When the Scarver Company, the buyer, had satisfied itself that it had a reasonable claim for reduction in the amount of the Truxton Company's bill as rendered, it had the opportunity of submitting a request for a reduction, either before paying the bill, or at the time of paying it. Had the Scarver Company thus requested an adjustment, giving in full its reasons for the request, that action would have given the Truxton Company a fair basis for explaining its price, and the way would have been clear for amicable settlement. By paying the bill in full and then asking for a rebate, the Scarver Company would have shown confidence in the seller which the latter should have been eager to justify.

Instead of following either of those courses, however, the Scarver Company made an unjustifiable decision: to remit a less amount than the one agreed upon and stated in the bill. One objection to such a practice is that it is almost certain to irritate the seller and make him antagonistic to fair discussion. A stronger objection, from the viewpoint of business policy, is that confusion and ill will must follow any general adoption of the practice of making unauthorized deductions. A company cannot well pursue this method in making its own payments, and yet refuse to allow its customers the same privilege. Such refusal, nevertheless, is essential if stability of operations and equal treatment of all customers are to be assured. Discrimination between customers, for instance, results from failure to enforce strictly the terms of cash discount offers. Those customers who pay promptly in order to obtain the discounts, or else pay in full after the expiration of the discount period, are penalized for their own good faith if the seller permits other customers to abuse the terms of the offer.[3] It should be noted, furthermore, that the Scarver Company implied that agreed prices are subject to revision on the basis of subsequently acquired market information. Such an implication, if accepted, would mean that the seller could raise his price after delivery of the goods. Chaos would follow application of such a rule. The Scarver Company, therefore, by its act in this situation not only attempted arbitrarily to alter its contract, but also adopted a practice which it should not have permitted its own customers or its suppliers to follow.

Though the Scarver Company's decision was an undesirable one, that company would have had substantial grounds for requesting a reduction in price. When the Truxton Company accepted the first order, it did not state, apparently, that the size of envelope was unusual.

[3] See, for example, the case of the Superior Milk Company, 1 H.B.R. 431; commentary, 2 H.B.R. 531.

When the Scarver Company asked for a different lot in place of the first, the difference was not in size, but in type of flap. Since the Truxton Company at that point failed to point out that the new lot was, at least for the Truxton Company, an odd size, the Scarver Company was justified in expecting that the Truxton Company could fill the second order as readily as the first, so far as the type of product was concerned. So far as the Scarver Company was concerned, therefore, there was no reason for expecting that the Truxton Company's price for the second lot would be higher than the usual market price. When investigation showed that the price agreed upon actually was "higher than usual," the Scarver Company properly could have asked for a reduction or explanation of the price, while leaving the final decision entirely in the control of the Truxton Company.

At that time, the Truxton Company could have explained the reasons for its higher price. The Truxton Company, however, should not have waited for the Scarver Company to discover the price differential, but should have called attention, at the time of the second order, to the fact that the price would be higher than that prevalent in the local market. The Truxton Company was under no obligation to supply the second lot, because the need for it arose from an admitted mistake on the part of the Scarver Company. But if the Truxton Company intended to charge a higher price, thereby seeming to follow a varying-price policy, it should not have attempted to take advantage of the buyer's supposed ignorance of the market price, but should have given the Scarver Company opportunity to decide whether the special circumstances made purchasing from the Truxton Company desirable despite the price difference. These special circumstances were: the mistake in ordering by the Scarver Company and the resultant need for overtime work by the Truxton Company. This overtime, presumably, was caused by the fact that the second lot of envelopes were of an odd size. The Scarver Company, however, was not informed of any of those facts, and naturally might have thought that it had been discriminated against.

Prompt delivery of special orders may be a potent way of holding patronage, but not if prices are raised *without notice.* The Truxton Company, then, would have served its own long-run interests better by notifying the Scarver Company, before acceptance of the second order, of two facts: first, that the Truxton Company's price would have to be higher than the market because of the special nature of the order; and second, that more prompt delivery might have been made by other suppliers to whom the size was not "odd" and who, therefore, might have stocks on hand.

As to whether or not the Truxton Company was following a desirable price policy in quoting the higher price, the facts are not con-

clusive, but there were special reasons—the odd size ordered, as well as the Scarver Company's mistake in ordering, with the consequent "rush" work to be done—to be urged in defense of the "higher" price. Clearly, however, the Truxton Company failed to give the Scarver Company information to which the latter was entitled at the time of the second order.

Thus the dispute brought to light weaknesses in the procedures of both companies. Correction of those practices would avoid similar controversies in the future. In regard to the immediate issue, the Scarver Company owed the Truxton Company $30, and the award of the arbitrators was correct. The Truxton Company's position was clear on this point; the revisions needed in its procedure were matters of internal policy and subject only to the company's own will. With the Scarver Company, the matter was quite different: that company had attempted in an improper way to impose its will upon another firm, without permission and contrary to specific agreement.

November, 1927 C. I. G.

Dickerman, Incorporated[1]

TANNER—UPPER LEATHER

Merchandising—*Representation as to Quality of Goods.* In 1921, as a result of customers' cancellations, a leather tanning company had in stock or in process 50,000 square feet of light brown upper leather. Since the leather could not be disposed of at the time without an excessive loss, it was held in stock. In 1923, a shoe manufacturer, after seeing a sample of this leather, requested the company to tan 2,000 square feet of it. Although the sales manager of the tanning company realized that, because of natural deterioration, the product in stock was less strong than recently tanned leather, he decided to convey the impression that the leather was being produced currently and to ship it from the warehouse gradually in order to carry out the illusion. The sales manager reasoned that after the manufacturer had sold the shoes made from the leather, he would not care under what conditions the leather had been produced.

(1923)

Dickerman, Incorporated, engaged in the tanning of high-grade and medium-grade upper leather in many colors. Prior to 1921 the company had utilized foreign markets to dispose of that portion of its output which could not be sold in the United States at a satisfactory price; from 10% to 25% of its production had been so marketed. The company's experience had been that foreign demand frequently increased at a time when domestic demand was low. For this reason, the tannery produced several shades of upper leather for which there was no demand in the United States.

In February, 1921, conditions abroad became so unsettled that many of the customers of Dickerman, Incorporated, canceled their orders. At that time the company had in stock or in process 50,000 square feet of light brown upper leather which cost 80 cents per square foot to produce and which could not be disposed of readily in the United States. Since leather prices had dropped greatly, the lot was marked down to 25 cents per square foot, 5 cents below the market price for similar leather in other shades. This lot could have been sold for 18 cents per square foot, but since its sale at this price involved an excessive loss, and since Dickerman, Incorporated, did not require further cash at this

[1] Fictitious name.

time, the sales manager decided to hold the leather until a more satisfactory offer was obtained. The leather was held on the shelves of the tannery for two years without a customer.

In 1923 a shoe manufacturer who had been unable to secure a small quantity of leather of a special color was shown a sample of this light brown leather. He requested Dickerman, Incorporated, to tan 2,000 square feet of it, and offered 35 cents per square foot for this quantity if the company agreed not to sell any leather of the same shade to other shoe manufacturers in the United States. He stated that it was necessary to have distinctive models in order to make sales in the fall of 1923.

The sales manager hesitated to profess that the leather was to be manufactured to order. He knew that because of natural deterioration the product in stock was not quite so strong as leather tanned for only a short time. He was confident, however, that the leather in stock was suitable for the purpose of the shoe manufacturer. He might convey the impression to his customer that, since export demand was weak, he could sell quantities of this leather from time to time as it was produced for stock against foreign orders. This would satisfy the shoe manufacturer as to the novelty of the leather. The sales manager reasoned, furthermore, that after the manufacturer had sold the shoes made from the leather, he was not likely to care under what conditions the leather had been produced.

Hence, in spite of the fact that he was not stating his position openly, the sales manager decided to convey the impression that the product was produced currently and to ship the leather from the warehouse gradually in order to carry out the illusion.

COMMENTARY: None of this leather was less than two years old, a condition which admittedly meant a deteriorated product. The sales manager evidently reasoned that the buyer could not detect this deterioration and that he would not hire an expert who could. Certainly misrepresentations of this sort were incompatible with long-time business policy; and to jeopardize the reputation of a firm, for a few hundred dollars and with such a high degree of risk of detection, was inexpedient. The sales manager's reasoning "that after the manufacturer had sold the shoes made from the leather, he was not likely to care under what conditions the leather had been produced," was nothing short of presumptuous.

The question arises: What would have been the buyer's reaction if

he had been told the truth? Unfortunately there is a possibility that he would have either demanded less than the market price or refused to buy at all. This is a real difficulty. It has been frequently suggested that the buying public can be as unfair as the vendor and is equally in need of ethical counsel. This observation does not, however, excuse sharp selling practices, but it does mitigate to some extent the condemnation they deserve.

Giving the manufacturer an exclusive right to purchase this leather justifies a suspicion as to the wisdom or the good faith of the sales manager. His refusal to make such an agreement would have freed him from any implied obligation to disclose the amount of leather remaining on the shelves.

This stock of leather, which cost $40,000 to make, had a minimum sales value of $9,000. Sound business methods would have called for writing off an inventory loss of approximately $30,000 during the two-year period it lay on the shelves. The failure to do this created a "bogey" in the sales manager's mind as to the real loss immediately faced. When the opportunity arose to sell 4% of this stock, he resorted to misrepresentation and risked the sale of the remaining 96% for a maximum gain of $300. His agreement to sell exclusively to the manufacturer would in all likelihood shortly cause his company to face the dilemma of committing a further violation of good faith or of having the bulk of its goods remain permanently on the shelves.

October, 1927 C. F. T.

Westnell Company[1]

MANUFACTURER—ELECTRICAL APPARATUS

Collections—*Prosecution to Recover Hidden Assets.* Though the claim of an electrical apparatus manufacturer against a bankrupt customer amounted to only about $20, the manufacturer decided to contribute $200 toward a fund being raised by creditors to prosecute a search for hidden assets of the bankrupt. The action of the creditors was expected to constitute a warning to other dealers in electrical apparatus that dishonest ones would be prosecuted.

(1924)

The Westnell Company manufactured electrical apparatus, which it sold chiefly through wholesalers. One of its customers, the Kawin Company,[1] in 1924 went into bankruptcy as a result of mismanagement. The claim of the Westnell Company against the Kawin Company amounted to about $20; other creditors had claims varying from $50 to $1,500.

When the receiver appointed by the court took charge of the Kawin Company's property, only an empty showcase was found in the store. A few days before, a stock of merchandise worth $5,000 had been on hand. Several of the creditors, therefore, determined to try to locate the hidden assets in the hope of recovering a part of their losses. The Westnell Company had to decide whether or not to join this group of creditors by contributing to a fund to prosecute the case.

As the Westnell Company was highly rated in its community, its action would set a precedent for other creditors to follow. The committee therefore requested it to contribute $200 toward the fund, although its claim amounted to only $20. There was no possibility of recovering the money contributed. In bankrupt cases, usually not over 20% of the amount of the claims was realized.

It was evident that the Kawin Company's assets had been carried off and that a few of the creditors had received preferential payment. It would take a long time to recover the property and to settle the affairs of the bankrupt company. Cross-

[1] Fictitious name.

examination of the manager in court might bring out facts that would ruin his business prospects. The creditors believed, however, that his dishonesty should be exposed to the public before he attempted his unscrupulous practices on a larger scale. The preceding year had been a profitable one for the electrical supply business, and there was the possibility that other dishonest men might enter the business with the intention of making large profits while the boom lasted and of evading the payment of their bills by declaring their organizations bankrupt. In 1920, when the electrical supply business was expanding rapidly, similar situations had occurred and many dishonest debtors had escaped unpunished. Prosecution of the Kawin Company would indicate to people contemplating such practices that the electrical supply manufacturers had determined to punish dishonest merchants and that the opportunities for making profits fraudulently were small. The example also would tend to stimulate other merchants who were poor credit risks by making them realize that they would be held responsible for their debts.

In spite of the small amount to be recovered, the Westnell Company decided to contribute $200 toward the prosecution fund.

COMMENTARY: Bankruptcy proceedings have from the beginning presented two aspects, that of punishing the dishonest debtor and that of relieving the honest but unfortunate debtor. The former was the more prominent in the bankruptcy laws of the sixteenth and seventeenth centuries. It has gradually come to play an insignificant rôle in current bankruptcy statutes. That it is still important from the point of view of the business man, however, is illustrated in the procedure of the case before us. Where dishonesty is shown, the law not only provides that the bankrupt shall receive no "discharge" but it goes further and undoes within certain defined limits his preferential and fraudulent acts. Furthermore, it leaves him open to prosecution criminally for the improper acts themselves and subjects him under penalty of court to a most thoroughgoing examination by the creditors. The publicity attaching to these hearings is by no means an insignificant part of the punishment meted out to the dishonest debtor.

The bankruptcy statute has been found so important and useful a device in modern business that, contrary to all precedents, the last Federal statute has been kept alive on the books for a whole generation and has thus made bankruptcy a permanent part of our legal system rather than an occasional legislative device for readjustment.

The advantage of the system to business, however, is accompanied by dangers of misuse, such as that intimated here, and credit men keenly appreciate the extreme importance of fighting such abuse if the bankruptcy system is to be preserved.

July, 1927 N. I.

Payson Manufacturing Company[1]

MANUFACTURER

Collections—*Settlement of Creditors' Claims.* The stockholders of a company which was heavily in debt had elected as president a representative of the creditors, but upon learning, after a year, that assets were being wasted, they insisted on the appointment of receivers. The ensuing year showed an operating profit and a reduction of debt. The stockholders then proposed a plan of reorganization under which creditors should be paid in full without interest, 50% in cash and 50% in 6% 10-year bonds. The stockholders were prepared to contest the creditors' claims on the grounds of mismanagement and thus to compel payment of spot cash for the company's assets if the creditors forced a receivers' sale with the intention of bidding in the property for the face value of their notes. To avoid publicity of the stockholders' charges of mismanagement and the necessity not only of investing additional money but also possibly of paying damages to the stockholders, the creditors decided to accept the proposal.

(1923)

In 1921 the Payson Manufacturing Company had been managed by a representative of a creditors' committee and in 1922 by two receivers. Whereas, under the former, operating losses and balance sheet losses had been sustained, a slight profit was shown for 1922. The preferred stockholders then proposed a reorganization, which provided that the creditors accept the face value of their claims, without interest. Since the company was making a profit, even after account was taken of accrued interest on the debt, the creditors' committee was unwilling to accept any compromise. The creditors were informed, however, that, if they attempted to force a receivers' sale and to bid in the property, the stockholders would contest the validity of the outstanding notes on the grounds of mismanagement. The creditors thus would be obliged to pay for the company's assets at a sale with cash, instead of with the notes they already held, since, when claims against a company were substituted for cash under such circumstances, the claims had to be uncontested. The creditors were uncertain, therefore, whether to request a sale of the assets.

The Payson Manufacturing Company was capitalized at $1,-

[1] Fictitious name.

000,000. Of this total, $300,000 was in 8% cumulative preferred stock, which the company issued in 1918 in order to finance the construction of a new plant and to maintain inventories sufficient to fill the increasing volume of orders which it had been receiving since 1914. In addition to the money obtained from the preferred stock issue, the company had borrowed extensively from six banks; total borrowings aggregated over $1,600,000 on December 31, 1920.

Declines in market prices and decreased sales during the latter half of 1920 resulted in an operating deficit of $100,000 for the year. When the banks were informed of this condition, they insisted that dividends be passed on both preferred and common stock. The banks also formed a creditors' committee, which threatened the company with a receivership unless the directors elected as president of the company a representative of the creditors and permitted him to continue in office until the company's debts were liquidated. As the stockholders wished to avoid a receivership, they assented to these terms.

The new president embarked at once upon a radical policy of liquidation. In order to dispose of the inventory of merchandise, which amounted to over $800,000, selling commissions to brokers were doubled, salaries of salesmen were increased, and, in addition, a task and bonus payment system for salesmen was inaugurated. Under it, payment was made for dealer assistance and advertising, as well as for sales. Executives' salaries were increased, the advertising appropriation was doubled, and a cost system was installed at an expense of about $10,000 a year. The private brand business of the company, which had amounted to about 40% of the total sales, was restricted by a regulation requiring wholesalers to purchase quantities four times as large as the average wholesaler usually bought. These policies were introduced at a time when consumer demand for the product of the Payson Manufacturing Company was declining rapidly because manufacturers better known to consumers were able to fill all the orders offered them. The inventory was liquidated by the end of 1921, but at a loss of $400,000.

During 1921, several plans for reorganization were proposed by the preferred stockholders and by the creditors, but no plan was agreed upon. In December, when the stockholders realized that the company's assets were being wasted, they refused to

permit the creditors' representative to continue as president of the company and forced the creditors' committee to ask for a receiver. In January, 1922, two receivers were appointed; one was a representative of the creditors who was more acceptable to the stockholders than the former president had been, and the other was a representative of the preferred stockholders. The representative of the stockholders dominated the management with his ability and personality. He undertook immediately to abolish the causes of the losses which had been incurred under the management of the creditors' committee. He reduced salaries of executives and employees, discharged unnecessary salesmen, reduced the advertising appropriation, and endeavored to regain private brand customers. Sales in 1922 were about 30% less than in 1921, but the company showed an operating profit of $10,000 and, by further liquidation of assets, the receivers had been able to reduce the debts of the company to $240,000.

In January, 1923, one of the preferred stockholders proposed a plan of reorganization, which provided that funds be secured from the stockholders sufficient to provide working capital and that the creditors be paid their obligations in full without interest: 50% in cash already in the hands of the receivers, and 50% in 6% 10-year bonds secured by a mortgage on the plant and equipment. The creditors protested against this plan and asserted their intention of forcing a receivers' sale at which they could bid in the property for the face value of their notes. The stockholders, however, announced that if this action were taken and a sale held, they would demand that the creditors provide a proof of their claims and, furthermore, that they would contest the proof on the grounds of mismanagement by the creditors. They asserted that, since the creditors' representative who had managed the company in 1921 had been elected by the directors, he was responsible primarily to the stockholders, and that, if his acts were detrimental to the interests of the stockholders, either by design or by lack of ability, the stockholders were entitled to press their claims against those for whom he acted as agent. If such a contest were made, the case might remain in the courts for several years and, in the meantime, the creditors would be required to provide cash in order to purchase the assets of the company.

The creditors decided, therefore, to accept payment of their

claims at face value, without interest, rather than to run the risk of publicity being given to the stockholders' charges and of the creditors' being forced not only to invest additional money for a time, but also possibly to pay damages which might be awarded the stockholders by the court.

COMMENTARY: This case illustrates how under an umbrella receivership various types of creditors bargain with each other. In this process they use more or less openly not only their various advantages of business position but also the availability of legal devices in the hands of one or the other of the groups. Among these legal devices, of course, are those which have been brought into existence legitimately to give priority under the law to one type or the other of creditors. There are also more or less accidental advantages or possible dangers due to the type of process provided by law. The law's delays are always a factor tending to work to the bargaining advantage of one side or the other. The ethical aspect of relying upon such an element must not be overlooked. Indeed, the law tends to take increasing cognizance of what might be called the abuse of rights. In this case, however, there was apparently enough of a substantive claim on the part of the stockholders to render the threat of protracted litigation at least legal, and possibly ethical, too. For, when the management of a business is handed over to a committee of creditors, such a committee occupies a fiduciary relation not only to the creditors who have chosen them, but also to all other parties in interest, including stockholders. Such fiduciaries have a very high degree of answerability for their stewardship to persons placed as were the stockholders in this case.

April, 1927 N. I.

Florida East Coast Railway Company and Atlantic and East Coast Terminal Company[1]

Railroad Valuation—*Deduction for Depreciation.* In arriving at a tentative valuation of a railroad for rate-making purposes, the Interstate Commerce Commission based value upon the cost of reproduction new less depreciation. Over the railroad's protest that no legal or economic justification existed for deducting theoretical depreciation in the absence of an accumulation of deferred maintenance, the commission, in determining final value, refused to reverse its position, though evidence was submitted tending to show that the properties were fully maintained on valuation date and that no other expenditures economically could have been made.[2]

Railroad Valuation—*Including Cost of Theoretical Reacquisition.* The Interstate Commerce Commission, in arriving at a valuation of a railroad for rate-making purposes, determined the present value of the lands owned and used by the carrier by ascertaining the number of acres owned or used for common-carrier purposes and multiplying this acreage by fair average market values determined from the present market values of similar lands in the vicinity. The carrier's contention that in the determination of final value there should be added to the present value of lands the amount which would have to be expended in a theoretical reacquisition of them was denied.[2]

Railroad Valuation—*Inclusion of Going-Concern Value.* A railroad, protesting that on valuation date it had the use and enjoyment of property not owned by it, possessed valuable contracts, and had an assembled plant earning money, contended that for these reasons the properties had in addition to their bare structural value a going-concern value—used synonymously with cost of development—which should be included and allowed for in determining final value for rate-making purposes. The Interstate Commerce Commission rejected the contention, stating that it was unable either to include development cost in the valuation or to ascertain a separate amount to be allowed for going value.[2]

Railroad Valuation—*Basis for Estimating Cost of Reproduction.* Because construction of a railroad extension through the Florida Keys was without precedent in railroad history, because this extension had been built during the years immediately preceding the date of valuation, and because Interstate Commerce Commission engineers found no evidence of extravagance or wastefulness, the commission considered the original cost of construction the most reliable basis for estimating cost of repro-

[1] 84 I.C.C. 24 (January 15, 1924).

[2] Headnote by Graduate School of Business Administration.

duction, in fixing the value of that part of the railroad for rate-making purposes.[3]

RAILROAD VALUATION—*Basis for Estimating Working Capital.* In arriving at a tentative valuation of a railroad for rate-making purposes, the Interstate Commerce Commission fixed working capital at an amount composed of a certain sum in cash and a sum reflecting the value of materials and supplies on hand on valuation date. This amount was 35% of the railroad's operating expenses for the year ended on valuation date and 40% of the average operating expenses for the 5 years preceding that date. In fixing the final value of the railroad, the commission reduced the working capital to an amount equal to 17.5% of the operating expense for the year ended on the valuation date; the difference between this amount and that tentatively fixed was considered, for purposes of valuation, as non-carrier property.[3]

RAILROAD VALUATION—*Determination of Grading Quantities.* In valuing a railroad for rate-making purposes, grading quantities were obtained by the Interstate Commerce Commission from the measurement of the volume of the roadbed as it existed on the date of valuation; this volume included not only materials moved during original construction but those taken away from the cuts by action of the elements. In fixing a unit price for the material in the fills, the fact that an excess over present measured volume would have to be handled to provide for shrinkage and settlement due to lapse of time, the action of the elements, or other causes, was given consideration. These methods were equivalent to making allowances for appreciation in cost of reproduction new; no depreciation of any character was assessed against the grading in the roadbed.[3]

BY THE COMMISSION:

A tentative valuation of the properties of the Florida East Coast Railway Company and Atlantic and East Coast Terminal Company was completed and notice thereof given to the carriers concerned and other interested parties on August 11, 1921. Protests were filed within the statutory period by the Florida East Coast Railway Company, the Atlantic and East Coast Terminal Company, and the Atlantic Coast Line Railroad Company. A hearing has been had on the issues presented by the protests and briefs have been filed. . . .

The carrier in its protest as originally filed alleged that the sum of \$47,646,143, composed of \$46,931,947, which we found to be the value of the property wholly owned and used by it, and \$714,196, the value of the property used but not owned by it, leased from the Terminal Company, the Atlantic Coast Line, and private parties, is inadequate and insufficient to the extent that it is less than \$55,545,524. At the hearing the carrier amended its protest to claim a value of \$60,000,000. This sum is composed of the amounts reported by us

[3] Headnote by Graduate School of Business Administration.

for cost of reproduction new of common-carrier property other than land wholly owned and used, and used but not owned, the amount of working capital, including materials and supplies on hand on valuation date, and the amount which we ascertained to be the present value of the lands owned and used and used but not owned, aggregating in all $50,141,822, plus $2,882,044 for the present cost of acquisition of lands owned and used, and used but not owned, in excess of their present value, and $6,970,598 for cost of development. The value of the Terminal Company's property is claimed to be $1,878,646, instead of $1,200,000 as reported by us. This value is determined by adding to our reported cost of reproduction new and present value of lands the amount of $548,158 which we found to be the present cost of condemnation and damages or purchase of lands owned but not used devoted to common-carrier purposes.

It thus appears that the values for which the carriers contend are built up by adding together the cost of reproduction new, without deduction for depreciation, the excess cost of acquisition of carrier lands, materials and supplies, and cash on hand, and, in the case of the carrier, an amount approximating $7,000,000 for cost of development, or, as it is also termed by the carrier, going-concern value.

The carriers contend that in so far as our final values reported are based upon the cost of reproduction less depreciation, they are insufficient because no legal or economic justification exists for deducting theoretical depreciation in the absence of an accumulation of deferred maintenance. They submitted evidence tending to show that the properties were fully maintained on valuation date and that no further expenditures could economically have been made. Since the decision of the Supreme Court in *Knoxville* v. *Water Co.*, 212 U.S. 1, courts and commissions have accepted, as a settled practice in valuation proceedings, the deduction from reproduction new of the depreciation accrued in that which theoretically is being reproduced. The Congress in its mandate has required the commission to report cost of reproduction new and also reproduction less depreciation. There is, therefore, both legislative and judicial authority for this finding. . . .

The present value of the lands owned and used by the carrier as found in our tentative valuation is $4,406,448, and of the lands owned by the Terminal Company, $1,034,258. We also found that to acquire these lands on valuation date the carrier would have been required to expend $2,607,264, and the Terminal Company $548,158, in excess of the present value of the land. The carrier and the Terminal Company contend that in our determination of final values we should add to the present values of their lands the amounts which they would necessarily expend in a theoretical reacquisition of them.

We have determined the present values of these lands by ascertaining the number of acres owned or used for common-carrier purposes and multiplying this acreage by fair average market values determined from the present market values of similar lands in the vicinity.

Exhibit 1: Map of the Florida East Coast Railway.

. . . The application of this method is supported by the decision of the Supreme Court of the United States in *The Minnesota Rate Cases*, 230 U.S. 352, in which the court said:

> The company would certainly have no ground of complaint if it were allowed a value for these lands equal to the fair average market value of similar lands in the vicinity, without additions by the use of multipliers, or otherwise, to cover hypothetical outlays.

This ruling of the Supreme Court is full authority for disregarding present cost of acquisition of carrier lands in arriving at the value of the property of a carrier.

At the time our tentative report was prepared and served, Section 19*a* of the Interstate Commerce Act required us to report separately as to lands the original and present cost of condemnation and damages or of purchase in excess of original cost or present value. By amendment approved June 7, 1922, this requirement was stricken from the act and we are now required to ascertain and report only the original cost and present value.

The carrier protests that on valuation date it had the use and enjoyment of property not owned by it, possessed valuable contracts, and had an assembled plant not only capable of earning money but actually earning money, and contends that for these and other reasons the properties had in addition to their bare structural value a going-concern value which should be included and allowed for in the determination of final value. The term going-concern value is used by the carrier synonymously with cost of development. The contention of the carrier is that the tentative valuation only reproduces the property to the point where the physical plant is ready to begin operations and makes no allowance for the cost of vitalizing it; of finding men to compose the personnel of the organization; of finding and bringing to it the traffic which it is capable of transporting; and of developing it into the active, successful, and efficient plant that existed on valuation date. No figures are in existence which would indicate the amount of money expended by the carrier to bring about this condition of efficient and successful operation, but a method is suggested by which, it is claimed, this expense may be calculated.

In order to ascertain the length of time for a new carrier to develop its business, a comparison was made of the actual experience of eleven new roads during a series of years following their construction, as contrasted with the experience of eleven comparable old roads during the same years. The annual operating revenues per mile were computed and averaged and the averages were plotted on a chart. The chart, it is claimed, shows that at the expiration of seven years the revenues per mile of the new roads increased annually in about the same proportion as the revenues of the old roads, whereas until that time had elapsed they increased much more rapidly, especially during the first two or three years. The period during which the new roads were building up their business to approximate that which they enjoyed

after conditions had become stabilized was therefore determined to be seven years, although an examination of the exhibit filed by the carrier indicates that it might as readily be concluded that four or five years constituted this so-called development period.

Assuming that the period was seven years, it was found that the revenues per mile of the first year's operations averaged 41.13% of the revenues per mile in the seventh year, that in the second year the proportion was 57.38%, in the third year 70%, and so on. Having ascertained the development period it became necessary to find the difference between the aggregate of the annual net railway operating income of the carrier reproduced new on valuation date for the period of its development, and the corresponding income during the same period which the carrier would have earned in the condition in which it existed on valuation date. During the seven years preceding June 30, 1916, the date of valuation, the mileage operated by the Florida East Coast varied. To produce uniformity throughout this period, revenues and expenses per mile operated in each of the several years were obtained from the records and were multiplied by the number of miles in operation on June 30, 1916. From these figures adjusted operating revenues, expenses, and ratios were obtained. Deductions for taxes, hire of equipment, and joint-facility rents left remaining the net railway operating income for each of the seven years adjusted on the basis of the completed road. On the assumption, as heretofore explained, that only 41% of the normal revenues would be earned the first year, 57% the second year, and so on, the percentage for each year was applied to the adjusted operating revenues to ascertain the estimated revenue for the property reproduced new as of valuation date. Operating expenses were estimated by applying an operating ratio to the resultant revenues, bearing the same relation to the actual operating ratios of the carrier, adjusted to the mileage on valuation date, as the average of the actual operating ratios of the new lines used in the study bore to the ratios of the old lines in each of the seven years. The net railway operating income of the reproduced property was then calculated for each year and the difference between that amount and the adjusted income of the carrier was considered to be the development cost. Interest at 6% was computed on the differences and compounded annually. The difference between the income of the railroad as estimated for each of the seven years on the basis of the mileage in operation on valuation date and the income estimated on the percentages of the seventh year's revenues under operating ratios obtained in the manner described aggregated from 1910 to 1915, inclusive, $5,298,816. Adding interest at 6% compounded annually, aggregating $1,671,782, produced the sum of $6,970,598, which the carrier claims as its cost of development.

We have already had occasion to pass upon claims similar in principle to the above. *Texas Midland Railroad, . . . Atlanta, Birmingham & Atlantic R. R. Co.*, 75 I.C.C., 645, and *San Pedro, Los*

Angeles & Salt Lake R. R. Co., 75 I.C.C., 463. In the latter case we said:

> The carrier introduced a large amount of testimony and an exhibit in an attempt to show that the cost of developing the property and the business of the carrier to the point of time when, at about valuation date, it became a profit-earning carrier, amounted to approximately $14,000,000. The carrier's theory was that the cost of development of its business and property was reflected by the sum of deficits sustained from operations for the years during which it operated prior to and including June 30, 1914, the deficits being determined by ascertaining the amount by which the carrier's annual railway operating income failed to equal 6% of the average investment of the carrier in property devoted to the public service. In considering the effect of deficits from operations upon the carrier's property value in the *Texas Midland Case,* we said, page 71:
>
> "....However, the owners of the Texas Midland have not received a fair return on their investment in this property. The operation of the road, as shown in Exhibit C and other data in Appendix 2 hereto, has resulted in frequent deficits. These deficits are not elements of value, but they are pertinent facts to be given consideration in a proper proceeding."
>
> We are unable to sustain the carrier's contention that the method employed is the correct one for determining cost of developing its property and its business, and we are also unable to subscribe to the view that, even if the method were acceptable, the results derived from its use would justify the inclusion in the value of the carrier's property of the amount claimed as the cost of development, or as going-concern value. This method was disapproved, and the contention that cost of development should be included in the value of the public utility's property for rate-making purposes was rejected, by the Supreme Court in its recent decision in the case of *Galveston Electric Company* v. *Galveston,* 258 U.S. 388....

We deem it unnecessary to discuss the carrier's claim in this respect further. Not only are we unable to include development cost in the valuation but we are also unable to ascertain a separate amount to be allowed for going value.

The extension from Homestead to Key West was constructed to enable the carrier to reach a point which combined the advantages of a good harbor and favorable location with respect to Gulf of Mexico, Central American, South American, and West Indian traffic. Freight is transferred between Key West and Havana in freight cars placed on ocean-going steamers, enabling a large volume of through traffic to be handled between the mainland of continental North America and Cuba without the expense, inconvenience, and risk of loading and unloading at seaports. The extension is thus a vital link in a system

furnishing the entire country with rail connection with Cuba, a service not performed by any other road.

The extension is over 128 miles long, the first 14 miles south of Homestead crossing swamps to the point where it leaves the mainland, the remaining 114 miles following the arc of the Florida Keys to Key West. The keys, a low-lying chain of islands flanked by coral reefs, are generally long and narrow in shape with intervening channels and inlets which are crossed at great expense. Bridges span the channels and shallow water from key to key so that more than 13% of the length is over bridges constructed at a cost, as reflected in the estimates of reproduction new, of approximately $75,000 a mile, or a total of $9,573,806. The average grading per mile is 72,500 cubic yards, practically all of which is embankment; the total reproduction new of grading is $9,593,387.

The construction of a property of this character is without precedent in railroad history. For that reason and because it was built during the years immediately preceding date of valuation and our engineers found no evidence of extravagance or wastefulness, the original cost of construction was considered the most reliable basis for estimating cost of reproduction and was very largely followed.

The original cost, including land and excluding certain amounts for unapplied construction, materials, and supplies, and a credit for revenues and expenses during construction detailed elsewhere in this report, was $27,127,205, or about $212,000 a mile. While undoubtedly high, this cost and the wisdom of the venture stand unchallenged upon the record, notwithstanding the full opportunity afforded to the public and any interested parties to protest any possible inequity resulting from its consideration, undiminished in amount, as one of the elements upon which final value for rate-making purposes would be predicated. The extension was put in operation to Key West in January, 1912. For the five years ending June 30, 1911, the net income of the carrier was $285,167.25. For the next five years it was $1,304,074.25, or an increase of $1,018,907. The influence of the operation of the extension in producing this increase does not clearly appear, but at least it failed to cause a shrinkage in net revenues. The ability of the carrier by reason of the existence of the extension to handle rail movements from Jacksonville to Key West affords it a large amount of through traffic providing a haul over the entire main line of the system. As noted elsewhere in this report, the carrier earned a net railway operating income in the year ended on date of valuation equal to a return in excess of 5.75% upon the value herein found.

The amount assigned as working capital and included in the final single sum value stated in the tentative valuation is $1,431,947, composed of $838,372 cash and $593,575 value of materials and supplies on hand on valuation date. This sum is 35% of the carrier's operating expenses for the year ended on valuation date and 40% of the average operating expenses for the five years preceding that date, and

is, in our opinion, substantially in excess of the carrier's normal requirements. Our experience with the actual operating needs of individual carriers has thus far indicated that as a rule the requisite amount of working capital for carrier purposes is substantially less than 20% of annual operating expenses, and in some cases is as low as 6%. . . .

Taking into account the foregoing considerations and, in addition, the extent of the carrier's property, the average cash balance and value of materials and supplies over a period of years preceding valuation date, the fact that construction was in progress during the larger part of this period and materials and supplies were used in connection with both construction and operation, and the average operating revenues and expenses during the same period, we are of opinion that the sum of $700,000, which is equal to 17.5% of the operating expense for the year ended on valuation date, would suffice to meet all ordinary requirements for working capital. This sum will be substituted for that stated in the tentative valuation, and the final value will be modified accordingly. The excess of $731,947 of the cash and materials and supplies on hand on valuation date over the amount here found necessary for working capital is considered for purposes of this valuation as noncarrier property.

The gravamen of the carrier's protest is that we have failed to give consideration to values other than those of physical property, and have therefore understated the true value. On the contrary, we have appraised the plant as it was on valuation date, organized, assembled, and in successful operation, and have endeavored to give due weight to all values of an intangible nature which inhere in its property, even though we have been unable to assign definite money values to them.

We have reiterated in *Atlanta, Birmingham & Atlantic R. R. Co.* and *San Pedro, Los Angeles & Salt Lake R. R. Co.*, that we are not, and cannot be, bound to a mere formula in finding and fixing a value for rate-making purposes, but that such a determination is reached by the exercise of a reasonable judgment having its basis in a consideration of the relevant facts. Where the duty of finding and fixing value reposes in a number of individuals, they may reach conclusions in which all are agreed, although each may give different weights to the various factors, and although they reach their individual conclusions by materially different processes. It is, therefore, not at all times possible for a commission to analyze its individual and composite processes of determination of value. It is, however, possible in this case to summarize, without undue elaboration, factors given consideration in determining the final value. Attention may properly be called to the fact that often there is not available as complete a record as is before us in this instance. Such matching up of figures as has been made in this summary results in coincidences in this case which in another might be divergencies without impairing the substantial soundness of the valuation made in either case.

The carrier's books record an investment of $48,207,858.63 in car-

rier property. When there are excluded charges that, under our accounting classification, go to other accounts, the investment as restated in detail in Appendix 2 stands at $45,185,902 as of date of valuation. Deducting $1,709,160, the recorded cost of carrier lands, we have $43,476,742 as the investment in property other than land. The reproduction-new cost of the same property is $43,515,318. This reproduction study, therefore, provides so close a check on the investment statement as to give assurance of approximate accuracy. The known original cost of certain segments of the property also closely coincides with investment and with reproduction-new cost. The allied Terminal Company, the final value of which is found and fixed herein, affords a similar comparison. The investment in and original cost of this property are both placed at $603,502.87, of which $340,012.35 represents the original cost of land, leaving $263,490.52 for the remaining property. The reproduction-new study check produces a cost of $298,230 for the property other than land.

In this case . . . . original cost of the entire property of the carrier could not be ascertained, but the original cost of an important segment of the property, the Key West extension, is in the record . . . . $27,984,675. This includes $1,275,620 for certain expenses connected with land, $98,315 for unapplied construction, materials, and supplies, and a credit of $56,202 for revenues and expenses during construction, items not taken into account in the engineering report on reproduction. Elimination of these items brings the cost of the Key West extension to $26,666,942, which may be compared with the cost of reproduction new of $26,666,940. This latter figure is the cost of reproduction new of the Key West extension included in the original cost figures stated above, but does not include an item of $614,782 for the cost of reproduction new of floating equipment, not set out in the detail of original cost of the Key West extension.

Turning to equipment, including floating equipment, we find another illustration of the close check of original cost by our cost of reproduction new. The cost of the carrier's equipment is stated in the records to be $5,039,854. Of this amount all but $82,312 has been verified by examination of the accounts. We find that to reproduce the same equipment new on valuation date would cost $4,999,222.

The Key West extension, together with the equipment owned by the carrier, accounts for $33,024,529 original cost in the $45,185,902 of investment and for $31,666,162 of the $43,515,318 cost of reproduction new. As we have already pointed out, the amount of the investment in the entire common-carrier property, less that pertaining to carrier land, closely approximates the cost of reproduction new. While we are unable to find original cost of each item of property of the carrier, other than land, $43,500,000 may be said to approximate closely the original cost of creating and improving the property as a whole. The records reveal that the original cost of carrier lands was $1,709,160, raising the total of physical properties and lands to $45,209,160. There is included in this total $60,914 of donations made in the con-

struction of industrial switches, but no value for donated lands. It is possible that some part of the $497,124 expenses attaching to all donated lands should be added to cost of carrier lands.

In our reproduction studies we have applied unit prices based on a 5-year and, for some items, 10-year span, ended June 30, 1914. The methods employed in making these studies . . . . are intended to afford an index of the cost of producing the property during the short period of years prior to June 30, 1914. All necessary overhead charges are included. The grading quantities have been obtained from the measurement of the volume of the roadbed as it existed on date of valuation, which included not only materials moved during original construction but those taken away from the cuts by the action of the elements. This is equivalent to making an allowance for appreciation in the cost of reproduction new. In fixing a unit price for the material in the fills the fact that an excess over the present measured volume would have to be handled to provide for shrinkage and settlement due to lapse of time, the action of the elements, or other causes, was given consideration, thus further allowing in the cost of reproduction new another element of appreciation. No depreciation of any character was assessed against the grading in the roadbed. This treatment of the subject involves a minimum of speculation and allows carriers that appreciation to which a definite cost can be assigned.

Thus far in this summary we have not referred to the cost of reproduction less depreciation arrived at in the same synthetic way as the cost of reproduction new and resulting in a total on valuation date for property other than land of $38,569,822. The value of the lands on that date, determined in conformity with the method described in the *Texas Midland Case* . . . . was $4,406,448. This amount, added to the depreciated value of other property, produces the sum of $42,976,270.

Valuation is not a mere mathematical restatement of original costs, investment, and estimated reproduction new or less depreciation of physical property other than land, with present land values added thereto. Our tentative valuation of the carrier took into consideration the fact that it was on valuation date a vitalized, organized, going railroad. The railroad property, separated from working capital then on hand, was given a value of $45,500,000. This was the value found for a railroad with organized forces and attached business, an established agency of public service whose existence seems fully justified and the record of whose organization and construction is impressive in the matter of risk assumed and services rendered. The railroad provides rail transportation facilities to the east coast of Florida and has been the principal factor in the development of that part of the country. To it is to be attributed in a large measure the increases of values which have there occurred. It extends beyond the mainland of Florida and carries the national rail system to Key West and, by ferries and terminals, makes possible the transportation of freight

not only between Key West and all parts of the United States, but in unbroken carloads, between Cuba and the United States.

The carrier not only serves an important part in supplying the transportation needs of the country, but its financial record indicates a well-conceived and established business. From 1909 to 1916, inclusive, its operations were conducted at a profit. No dividends were paid, and the surplus from operations was credited to profit and loss. During the year ended June 30, 1916, the net railway operating income, including therein the debits and credits from equipment and joint-facilities rents, amounted to $2,778,322, or sufficient to pay a return of 5.75% on a capital of $48,319,000. Its unmatured funded debt amounted to $37,300,000, which, with $10,000,000 par value of capital stock outstanding on June 30, 1916, produced a total of $47,300,000. Its net railway operating income, averaged over the five-, four-, three-, and two-year periods preceding valuation date, produced sums sufficient to pay a return of 5.75% on amounts varying from $27,001,000 for the five-year period to $39,720,000 for the two-year period. The substantial higher earning capacity during the year ended June 30, 1916, has already been noted.

The market value of bonds and stock cannot, in this instance, be resorted to as affording enlightenment on the value of the property. On date of valuation all except 9 shares, par value $900, of the 100,000 shares, par value $10,000,000, of the capital stock outstanding were owned by the estate of Henry M. Flagler and Mrs. Mary Lilly Flagler, the 9 shares being held in the names of the directors. A majority of the bonds also were held by the Flagler estate. The road was then emerging from a period of construction and extensions. It had been financed as well as constructed almost entirely by Henry M. Flagler, and is stamped with some aspects of a personal venture.

The law requires that we report the original cost of all lands, rights of way, and terminals ascertained as of time of dedication to public use, and the present value of the same. . . . . In the investment and original cost statements hereinbefore analyzed no amount is included to cover value of donated lands and only $60,914.64 representing donations. These were made on account of construction of industrial tracks. The land aids were extensive, however, including 611,447.65 acres of land grants. The carrier and its predecessors disposed of 604,512.90 acres of these lands for $701,750.54. In addition to these, the carrier received 222,271.76 acres designated as donations, and of these lands sold 216,593.03 acres for $494,736.80. There were attaching to both classes of donated lands $497,023.97 of expenditures. Other minor parcels of land are listed in Appendix 2 for which the considerations were nominal or which represent streets occupied by the carrier. The carrier also, free of consideration, received 333⅓ shares of the capital stock of the Jacksonville Terminal Company. The value on date of valuation of all donated lands then owned by the carrier is $2,289,199.93, of which $2,169,576.52 represents value of carrier lands and $119,663.41 value of noncarrier lands.

No concessions or allowances appear to have been made by the carrier on account of its having acquired lands through land grants.

We find no values or elements of value other than those mentioned above.

Upon consideration of such matters as we have here summarized, as well as in more detailed disposal of the various specific protests to the tentative valuation, we reach the conclusion and find that the value for rate-making purposes of the property of the carrier owned and used for purposes of a common carrier, including $700,000 for working capital, is $46,200,000, and of the property used but not owned, $764,196, and that the value for rate-making purposes of the property of the Terminal Company is $1,300,000.

The act also requires us to value investment in stocks and bonds of other companies, and notes of such companies or individuals. . . . . Such noncarrier assets do not affect the value for rate-making purposes. . . . .

An order will be entered in accordance with our findings.

Hall, *Chairman,* concurring:

In reaching with the majority the conclusions expressed in this report as to value for rate-making purposes on valuation date it is appropriate to say that the treatment of other values or elements of value seems to me inadequate and of "working capital—materials and supplies" erroneous.

Aitchison, *Commissioner,* concurring generally:

I dissent from the designation as noncarrier property of the greater portion of the cash and materials and supplies on hand as not warranted by the record.

Eastman, *Commissioner,* dissenting:

In my separate statement, in the *San Pedro Case,* 75 I.C.C., 463, 523-567, I expressed the view that so-called value for rate-making purposes should be based on the amount invested honestly and with a reasonable degree of providence in the existing property. To determine this amount it is necessary to know, as nearly as may be, what the property should have cost. The analysis of this subject in the majority report is incomplete, but it is possible to arrive at an approximation. Upon this point the conclusion of the majority with respect to the Florida East Coast is as follows:

> While we are unable to find original cost of each item of property of the carrier, other than land, $43,500,000 may be said to approximate closely the original cost of creating and improving the property as a whole. The records reveal that the original cost of carrier lands was $1,709,160, raising the total of physical properties and lands to $45,209,160.

In the case of the allied Terminal Company, the corresponding finding is:

> The investment in and original cost of this property are both

placed at $603,502.87, of which $340,012.35 represents the original cost of land, leaving $263,490.52 for the remaining property.

I am willing to accept these approximations as reasonably close. Adding $700,000 for cash working capital and materials and supplies, the total becomes $45,909,160, in the case of the Florida East Coast, as compared with $46,200,000 fixed by the majority as the value for rate-making purposes, and, in the case of the Terminal Company, $603,503 as compared with $1,300,000. It is the existing property which is being valued, however, and the majority estimate the losses through depreciation as $4,945,496 for the Florida East Coast and $30,723 for the Terminal Company. Deducting from the totals above given but one-half of these sums, for the reasons indicated in my opinion in the *San Pedro Case,* I arrive at $42,936,412, in the case of the Florida East Coast, and $588,142 in the case of the Terminal Company, as liberal approximations of the reasonable investment remaining in the property as of June 30, 1916. In my opinion, the respective rate bases as of that date should not exceed these figures.

Some question has been raised, not I think as to the honesty, but rather as to the prudence of the investment in the Key West extension of the Florida East Coast. As indicated in my separate expression in the *Atlanta, Birmingham & Atlantic Case,* 75 I.C.C., 645, 676, we should be slow to take action which will deprive investors of an *opportunity* to earn a return upon money which has been honestly expended in the construction of a railroad. Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown. So far as I am aware, neither the people of Florida nor the constituted authorities of that state have questioned the character of the investment in the Key West extension, which furnishes the only rail link between this country and Cuba; and if that investment was so wasteful and extravagant that the chance of earning a return upon the entire amount should be denied, the present record furnishes no basis for such a finding.

I am inclined to believe that the thought that there should be, perhaps, such a denial is born of the provisions of Section 15*a* of the Interstate Commerce Act. Under that section any value for rate-making purposes that we fix for the Key West extension becomes a part of the aggregate value of carrier property upon which freight and passenger rates within southern territory generally must be based. If traffic upon the extension is insufficient to produce the stipulated return, then, under this rule of rate making, an amount equal to that return must be derived from other traffic within the territory, even if such amount in no way accrues to the benefit of the Florida East Coast. But the provisions of Section 15*a* are wholly statutory and may be repealed or modified at any time. Quoting from *Dayton-Goose Creek Ry. Co.* v. *United States,* decided by the United States Supreme Court on January 7, 1924:

The carrier owning and operating a railroad, however strong

> financially, however economical in its facilities or favorably situated as to traffic, is not entitled as of constitutional right to more than a fair net operating income upon the value of its properties which are being devoted to transportation.

The stronger carriers are not entitled as of constitutional right to excess income which will offset the shortages of weaker roads, in order that all the carriers, strong and weak, in a given territory may earn an *aggregate* net operating income equal to a fair return upon the *aggregate* value of their railway properties. Constitutionally there is nothing which stands in the way of public regulation which would reduce the rates of each prosperous carrier down to a point permitting no more than a fair net operating income upon the value of its property, allowing the weaker carriers at the same time to charge such higher rates as they may be able in competition to maintain. As the court states in the case above cited, "Classification of railways in the matter of adjustment of rates has been sustained in numerous cases."

It was plainly the intent of Congress that, having fixed rates for a group under the provisions of Section 15*a*, we should do what we can to redistribute earnings so that the poor as well as the rich companies may earn a fair return. Quoting again from the recent *Dayton-Goose Creek Case:*

> In the *New England Divisions Case,* 261 U.S., 184, it was held that under Section 418 the commission in making division of joint rates between groups of carriers might in the public interest consult the financial needs of a weaker group in order to maintain it in effective operation, as part of an adequate transportation system, and give it a greater share of such rates if the share of the other group was adequate to avoid a confiscatory result.

But if it should prove impossible with the means at our command to redistribute earnings so that a carrier like the Atlanta, Birmingham & Atlantic will earn a fair return upon its value for rate-making purposes, or so that the Florida East Coast will earn such a return upon its Key West extension, it is clear that there are no constitutional inhibitions which prevent the repeal or amendment of Section 15*a*. And in any event the results which it is feared may flow from the provisions of a particular statute have no bearing upon our duty in this proceeding.

Potter, *Commissioner,* dissenting:

I am not able to concur in the majority report. I think it irregular to the point of illegality in that it does not contain a proper statement of principles, analysis, and method, and does not explain how and why its conclusions are reached. It encourages some inferences but expressly disclaims the process indicated. The report also exhibits certain specific erroneous conceptions which must have affected the figure of final value.

The report gives information as to original cost, reproduction cost,

reproduction cost less depreciation, earnings down to valuation date, the amount of securities outstanding, and points out that information as to selling prices is not available. It states that "we have appraised the plant as it was on valuation date, organized, assembled, and in successful operation, and have endeavored to give due weight to all values of an intangible nature which inhere in its property, even though we have been unable to assign definite money values to them." It disclaims resorting to formula and states that the "determination is reached by the exercise of a reasonable judgment having its basis in a consideration of the relevant facts."

Except for the disclaimer of use of formula and of having given any particular weight to any particular factors, it would be quite natural to conclude that $46,200,000 was arrived at as the final value by adding an allowance of $700,000 for working capital to $45,500,000 found as the value of the other property, the $45,500,000 being arrived at as follows:

Cost of reproduction new of physical properties	$43,515,318
Cost of reproduction less depreciation	38,569,822
Present value of lands	4,406,448
Total	42,976,270

The final figure of $45,500,000 represents an addition of $2,523,730 to the figure of $42,976,270. This addition is 5.8% of $42,976,270. It appears that in practically all of our tentative valuations a figure which averages about 5% has been arbitrarily added to the figure representing reproduction cost less depreciation, plus value of lands, and the resulting figure has been named as representing final value. A list of 330 carriers as to which we have found tentative final value, shows that the figures given as cost of reproduction less depreciation, plus value of lands plus 5%, correspond so closely with the tentative final values found, less cash and material and supplies, as to lead to the conclusion that the former figures were taken as the basis for arriving at the latter. The aggregate of the items for these carriers showing their cost of reproduction less depreciation, plus present value of lands, plus 5%, is $2,955,206,577. The aggregate of the tentative final values less cash and material and supplies is $2,957,-504,106. The difference is only one-thirteenth of 1% in excess of the 5% arbitrary. It appears that in many cases the 5% arbitrary coincides very closely with 50% of the depreciation found. Just what is the significance of this coincidence does not appear. Why the arbitrary which averages approximately 5% was adopted has never been explained. On review it will make more difficult the solution of the puzzle of what we do and why we do it. The report in this case disclaims resort to this formula so that explanation of how the figure of final value is arrived at is not available.

The report shows that figures as to original cost agree closely with those of estimated reproduction cost. It finds that the carrier is essential and efficient, and shows that its construction was justified on the basis of original cost, and would be justified on the basis of

estimated reproduction cost. There is, therefore, warrant for basing a finding of value on those figures. Analysis, principles, and rules could be stated. The case is peculiarly appropriate for such treatment and explanation of reasons. Notwithstanding this fact, the report emphatically repudiates any particular figure as having any particular significance. This is unfortunate because if the mind were to run in this case as the figures suggest, a precedent would be established that would be helpful in other cases. For instance, the same method, analysis, and reasoning would have exposed the lack of soundness in our finding in the case of the Atlanta, Birmingham & Atlantic. Apparently this fact is recognized by the majority report. To the end that no conclusion shall be drawn from this case that can be applied to others, the report points out that views of commissioners may differ as to reasons, but coincide as to conclusions, and says:

> It is, therefore, not at all times possible for a commission to analyze its individual and composite processes of determination of value. It is, however, possible in this case to summarize, without undue elaboration, factors given consideration in determining the final value. Attention may properly be called to the fact that often there is not available as complete a record as is before us in this instance. Such matching up of figures as has been made in this summary results in coincidences in this case which in another might be divergencies without impairing the substantial soundness of the valuation made in either case.

The report, therefore, leaves a reader entirely in the dark as to how its conclusions are reached. This is a basic error which should lead to condemnation in its entirety. It is incumbent on us to give sound reasons for what we do. We must apply principles and they must be applied consistently in all cases. We act arbitrarily until we announce the rules and principles which we apply. To state relation of original cost to reproduction cost is not merely an idle "matching up of figures." The results are not inconsequential "coincidences" or "divergencies." We must and necessarily do either deny or accord influence to such figures in every case. We should show how we use them in each case. We are not at liberty to accord them the same influence in all cases. We must be influenced by the results of construction expenditure rather than by the amount of such expenditure. The result of a unit of expenditure in the construction of an efficient carrier that is essential and renders vast public service is of far greater value than a similar result for a nonessential, inefficient carrier which renders less important service. Depending upon the conditions and characteristics of different carriers some are entitled to be valued at a figure that would protect original cost. Values of some are below that figure and of others above. It is inconceivable that all the railroads should so correspond in character and merit that the values of all could, to the extent our reports indicate, be based on expenditure. If, in this case, original cost, reproduction cost, reproduction cost less depre-

ciation, value of lands, cost of lands, development cost, amount of outstanding securities, earnings, efficiency, public service, and public need, had each been specifically dealt with as a factor affecting value, and if that method were determined to be adopted for all cases, we would have taken a long step toward sound practice. Such a method applied to each case would show the weight to be assigned to different elements which would vary in different cases. The final conclusions would, therefore, vary and show inevitably what everyone knows, that some properties are of far greater value than others showing the same or greater original cost, reproduction cost, reproduction cost less depreciation, plus value of lands, and plus the arbitrary.

In our report in *Petition of National Conference on Valuation,* 84 I.C.C., 9, I indicated how, in my opinion, the carriers should be classified and their values determined. Applying the principles there stated I think that in the case of the A., B. & A. the value of the accomplishment for a given unit of expenditure would be much less than the amount of the unit. In the case now before us, it is my view that actual expenditure should be adopted as the measure of value. I would apply this measure to lands as well as to other property. The carrier is essential and efficient. It renders indispensable public service. Original cost harmonizes with reproduction cost. Its record of earnings indicates sound financial enterprise at a value which harmonizes with its cost. On the other hand, it has not shown any special efficiency or merit indicating higher value. Though meritorious it has not demonstrated any special value above the amount invested in it. Under these circumstances I think it appropriate to apply the prudent-investment rule of protection of the expenditure in connection with it.

There should be included in expenditure the amount necessary to carry the property during its development period. Substantial expenditure was required to carry it to the time when it reached maturity. It was in the public interest that it be so carried. For these reasons we should and could conclude that it has a value corresponding with actual investment, plus carrying charges. A conclusion thus arrived at would carry convincing weight. The same test applied to the A., B. & A. would have shown less merit and less value per unit of expenditure. Other carriers, more essential and efficient, and rendering a higher degree of public service, which have enjoyed or are likely to enjoy relatively higher earnings because of their inherent merit, should be accorded a value in excess of original cost, such value according with or being above or below estimated reproduction cost. To apply this method in all cases would make it easy to review our work, test our reasons, and determine the correctness of our conclusions.

Soundness can be attained and justice done only when we fully explain our method of dealing with the various factors as they differ in the different cases. To ignore differences, coincidences, and divergencies, and treat all alike will result not only in "impairing the substantial soundness of the valuation made" but will render our valuations useless. The so-called matching up of figures does not result in

coincidences. It will show divergencies, but those divergencies when considered in the light of relative efficiencies and public service are the things we want to know, for they determine value and relative value and exhibit the reasons for results. They do not impair the soundness of the valuation made. They control and determine value. Soundness of valuation is impossible when such divergencies are disregarded. Correct conclusions as to value cannot be arrived at without thus considering the factors. To thus consider them is the requirement of law and reason.

Our most important duty is to learn what the law is, and how to arrive at value. We do not know. The courts must tell us. Valuation is a judicial function. Values must ultimately be determined by what the courts think, not by what we think. "What would the courts say?" is the question we must constantly ask ourselves. We should facilitate getting the important questions involved into the courts with the greatest possible expedition and in a way to point out the difficulties and perplexities. We are not doing this. We are doing the opposite. We are allowing our reports to take that form which makes review most difficult, if not impossible. This case naturally gives opportunities to bring up nearly every important question involved in valuation. We reject them all. We could specifically refer to every rule and principle we apply and give our views and explain why we do what we do. If we did that, the courts would tell us where we are right and where we are wrong. The whole atmosphere would clear. We, the carriers, the Congress, and the public would know where we stand and what we are doing. We could then go ahead in sound fashion and make real progress. To go ahead as now, leaving clouds of mystery over all we do, telling interested parties to take our conclusions and ask no question, is unworthy performance of the trust reposed in us. It gets us nowhere. It leaves wasteful uncertainty; makes unnecessary work, trouble, and worry for all concerned.

Proper analysis of method would perhaps show accord at certain points and thus the field of controversy would be reduced and burdens lessened. Failure to state methods and analysis so as to focus testing thought is wasteful because it elaborates unduly the study required in order to determine whether one is in accord with the final conclusion. It is not possible for the members of the commission generally to examine the record in these valuation cases. Under such circumstances, unless our reports clearly set forth and analyze the methods used in building conclusions, and show the treatment of the different elements, varying in different cases, that influence value, so that the report may be convincing in and of itself, even we, whose work the report is, cannot have satisfactory reason for our action. Our method is peculiarly unfair to the courts, for it throws burdens on them that properly are ours. If we would decide a few cases so as to show our interpretation of the law and make detection of our error possible, the courts could straighten us out, and we could go ahead and do our job in a satisfactory manner in most cases. It would not be necessary to take

many of our reports into the courts. As we now are doing our work, it will be necessary, as I see it, to take practically all of our reports into the courts. I see no escape from their being compelled to do all our work over again. This will be the natural consequence of giving conclusions and withholding reasons and arriving at aggregate figures without showing how we reach them. In justifying our valuations in court, it seemingly will be necessary to build up each case as completely as we have with our own staff to arrive at our findings. We will be required to organize extensive forces for court work, and litter courts with our records and data and the testimony which we have taken. The expense and delay will be frightful. I apprehend that the courts will send the cases to masters and that in the end they will value the carriers. In that event many millions that we have expended and required the carriers to expend, and much time and trouble will have gone to waste. Correct practices now would avoid the calamity for which we are headed.

I do not share at all the notion that it is not possible for a commission of 11 men to announce principles. Most of the uncertainties that exist would be cleared away by finding the answers to a dozen questions or so, which would involve fundamental principles. The commission could decide such specific questions and thereafter adopt in all cases the conclusions thus arrived at. These questions being answered by the commission in a specific case, our positions would be known. The courts could then pass upon those questions and our answers to them, and thus furnish us guides with which we could perform our task. Questions thus raised could be considered by the courts readily without throwing on them the burden of trying all the cases in their entirety as would seem to be necessary until the fog for which we are responsible is cleared away.

We should take a position squarely upon the question as to when and under what circumstances carriers are to be valued at original cost or less, or at reproduction cost, or more. In particular we should clear up the uncertainty as to the influence accorded to reproduction cost. We think that predominating influence is not given to reproduction cost. We may be mistaken. A careful study of all our reports to date may be regarded as indicating otherwise. We are constantly referring to our tentative reports and using their findings in determining the amount of allowable stock issues and otherwise in our work. . . . .

We should take position squarely on questions as to the treatment of development cost, depreciation, and appreciation. We should announce whether, in our view, in valuing a property as a whole, deduction should be made from cost as a measure of value of an amount representing depreciation supposed to have taken place in particular material, and whether such depreciation is to be considered as lost in a finding of value although the carrier is essential and efficient. We should take a position squarely regarding goodwill, and how and to what extent it should be valued. We should make determinations as

to land value so as to bring questions to the front and have determined the influence of land value in determining the value of a property as a whole. We are to value the property as a going concern. At the same time we are to report the values of lands. We have been told by the court how to value lands. Are the land values so to be arrived at to be taken in all cases as specific figures to be added to the value of the other property; or may lands in different cases, in connection with the property as a whole, be accorded values more or less? Adjoining lands may be shown to have particular values. When used by a carrier as a part of its property as a whole may they not have a special or different value more or less? Does the statute requiring land values to be found require that those values be used without regard to their real value for carrier purposes, or is the requirement of the statute designed primarily to force explanation of what we do? Although particular pieces of lands may have particular values, is their aggregate as a long strip used as right of way of value greater or less than the aggregate values of the parts? A right of way entering a city may be through land of little value. The right of way as desirable entry to the city may be of enormous value. Is the value of a property influenced by its strategic position, indicating wisdom and foresight of location? May the accomplishment of an expenditure on an efficient carrier wisely conceived, rendering vast public service, be valued at a higher figure than a similar expenditure on an inefficient carrier, poorly conceived, capable of rendering less important public service? These and others are questions upon which we could and should take definite position.

Some of the specific erroneous conceptions which must have influenced the figure of final value are as follows:

The carrier urges that in considering cost, investment, or other elements of value, it should have credit for approximately $7,000,000 for carrying the property during the development period and plausible reason for accepting this figure is set forth in the report. How much of an allowance is made by the report for the fact that the property was carried during its early period in anticipation of the recognition of values which only the future could disclose does not appear. If the arbitrary of 5.8% is for this purpose, there is nothing to indicate whether it is too much or too little, or the basis on which we arrive at it, or the principle we apply to this case that can be applied to others. We should take position on these questions. We should accept the carrier's method or state another. In my judgment the allowance should be a fair interest return per annum during the development period upon the investment, less the earnings of the property in the meantime. However the figure is to be arrived at, we should decide definitely what allowance should be made, and upon what basis it should be computed. It is well known that a reasonable period is required for development, and carriers are not expected to earn a fair return upon the investment from the outset. The carrying burden is part of the investment in the property and should be protected. De-

velopment cost constitutes essential expenditure as much as construction cost. Everybody knows that such an item must be provided for in connection with every new property. The property had to be carried during the development period. Those who carried it are entitled as a matter of common honesty to have this carrying expenditure protected. To refuse to do so would be confiscation. The report gives the impression that in some undisclosed manner development cost was considered in arriving at the final value, but the report does not show how it was considered or with what result. With such treatment erroneous view of the law would have no effect. No one would ever know whether we really did or did not make any allowance for development cost. The parties interested and the public are entitled to know how we treat the subject, what we do about development cost, and what we think the law is, and they are entitled to an opportunity to have the courts pass upon our method. The treatment in the majority report would make review difficult if not impossible. Stocks represent the values which the future is expected to develop and demonstrate. It is obvious in this case that the figure of final value is lower than it otherwise would be by the extent to which credit for development cost or goodwill was denied.

The figure allowed for working capital I think is inadequate; $700,000 is less than the aggregate of cash and material and supplies on hand during any one year. The average for the years 1912 to 1916, inclusive, is $1,063,025. There is warrant for accepting this figure. To use any other figure seems arbitrary.

It appears obvious that the figure of final value has been made less than it otherwise would be by the deduction of $4,945,496, being the amount by which the property is said to have depreciated. The amount would be required to reproduce the property, and should be considered as in the original investment. The property has been well maintained and as a going entity has not depreciated. It is not conceivable that a sane person would ever build a railway if he knew that a substantial part of his investment would be considered lost through depreciation and that he would not be permitted to have a return upon it. The law has no such unconscionable purpose. The report praises the carrier as essential and efficient. To deduct depreciation where such depreciation has not been taken care of out of income from the value which other figures suggest, is arbitrary, inequitable, and illegal confiscation of property.

The report states that since the decision of the Supreme Court in *Knoxville* v. *Water Company*, 212 U.S., 1, "courts and commissions have accepted, as a settled practice in valuation proceedings, the deduction from reproduction new of the depreciation." It says that the Congress in its mandate "has required the commission to report cost of reproduction new and also cost less depreciation." I cannot see that the *Knoxville Case* is applicable to the case before us. Nor can I agree that the mandate under which we act requires us to report de-

preciation when, as here, there is no depreciation in fact which affects value.

The report discloses another error which is fundamental. It does not do what the statute tells us to do. It says that "We have appraised the plant as it was on valuation date." The valuation date was June 30, 1916, more than seven years ago. Evidence as to subsequent conditions would throw light as to the value on valuation date, but it is disregarded. How values demonstrated later shall be determined is not shown. The whole basis for arriving at values throughout the world has changed since 1916. A valuation as of 1916 could not in the nature of the case be sufficient, fair, or legal for the purposes for which we are valuing the railway. It cannot be a valid and final valuation and be entitled to the presumptions and effects of a final valuation and cannot have efficacy in law. We should withhold a so-called final valuation until we can bring it down to date. To do so in this case would give the carrier the benefit of a showing of public service represented by gross earnings of $13,579,109 in 1921 as compared with gross earnings of $6,374,933 for the year 1915-1916. A consideration of earnings and public service should lead to a very different final figure. The question is not what was the value of this property in 1916, but as to its value at the present time or at a time when there prevailed conditions substantially similar to those at present.

The report in this case also discloses the error made in prior cases of not determining value which, when determined, must be used for rate-making purposes because it is value, but arbitrarily states a figure which without warrant of law we set up as the figure to be used as a basis for rate making.

We have great responsibility in this valuation work. It is a task that is designed to be upbuilding, to promote fairness, and create that confidence which is essential to the solution of the so-called railroad problem, and provide efficient transportation. The railways, considered in their relation to other enterprises, are probably first in importance. Agriculture and manufacture would be helpless without them. They need from 600 to 800 millions of dollars of new money each year for additions and betterments. They must have it if the country is to continue to develop and enjoy prosperity. It must be obtained from private sources. Private investors must be looked to. They must be individuals and institutions, such as insurance companies and banks, which invest their money on a business basis. The new money must come in the main from the present investors in our railroads. There are about 50,000,000 of them at the present time, counting, of course, those whose moneys are invested through insurance companies and savings banks which they own. If they are to continue to invest their moneys in railroads, they must be convinced that fair returns will be allowed to the carriers and that their present investments will not be confiscated by government agencies in the processes of valuation. Obligation to observe good faith and protect security values, and the fact that stocks represent intangibles and indicate relative merit resulting

from location, efficiency, and foresight, prompted the Supreme Court in *Smyth* v. *Ames* to say that in valuation work consideration must be given to the amount and selling prices of securities. A policy which threatens loss through confiscation and disturbs the confidence of security holders in the agencies of government when dealing with their property menaces the public interest and violates the law.

I am authorized to state that Commissioner Cox concurs in this dissent.

Campbell, *Commissioner,* dissenting:

The law specifically requires the commission to ascertain and report in detail the original cost to date of each piece of property owned or used for common-carrier purposes. The majority have found the original cost of the Florida East Coast Railway only with respect to the Key West extension. Had the law been complied with and the original cost of the property as a whole been ascertained, the figure at which the final value has been placed might have been different. For this reason I withhold my assent to the findings of the majority.

I may add that I cannot bring myself to believe that an expenditure of as much as $218,000 per mile of road, found to have been the average original cost per mile of the Key West extension, could have been or could be in the public interest. While that may have been the original cost per mile of this portion of the Florida East Coast Railway, I doubt if it should be used as the value for rate-making purposes upon which the public will be expected to pay to the owners the fair rate of return designated by the commission.

Commentary: The foregoing decision by the Interstate Commerce Commission is a typical valuation opinion as rendered by that body under the provisions of the Valuation Act of 1913. The several dissenting opinions disclose, however, a considerable divergence of opinion between the majority of the commission and Commissioners Eastman and Potter, who dissent from the findings. Commissioner Eastman argues for prudent investment as a basis for a "rate base," whereas Commissioner Potter insists that the plain requirements of the law are not being satisfied by the majority opinion.

In the earlier valuation decisions, such differences of opinion had not appeared, and the method of making valuation reports in substantially the form of this majority opinion had not crystallized. At no time has a clear statement appeared, showing the methods followed in fixing upon a figure of final value, and only when a number of reports had been published was it possible to work out the fact that the "5% formula" was being used, as suggested by Commissioner Potter. In the commentator's volume, *Railroads: Rates, Service, Management* (written in collaboration with Mr. Kenneth F. Burgess, now General Solicitor of the Chicago, Burlington, and Quincy Railroad), published

early in 1923, it was shown that this expedient was apparently being followed. More recently, however, something less than 5% has been added, and frequently nothing at all. The commission continues to assert, however, that it is exercising "judgment" and taking into account the various items of valuation, as required by the Valuation Act.

Under the decision of the Supreme Court in the Los Angeles and Salt Lake Case,[4] decided February 21, 1927, the decisions of the commission on such questions of fact are not subject to review until such time as the valuations are before the court as evidence in a controversy—such as, for example, a rate-level case, or a case involving the "recapture" of earnings.[5] The same conclusion holds true with reference to the weight attached to the present higher level of prices. In the Indianapolis Water Company Case,[6] the Supreme Court quite definitely appears to uphold the right of public utilities to include in a rate base a value for tangible property which takes into account the higher level of prices since the war. Since the valuations of the Interstate Commerce Commission are based upon prewar prices, this issue will almost certainly come to the Supreme Court for final adjudication, in a case involving the recapture of earnings, if not the general level of rates.

March, 1927 H. B. V.

[4] *United States, et. al.* v. *Los Angeles and Salt Lake Railroad Company,* 47 Sup. Ct. Rep. 413.

[5] For a detailed discussion of the commission's valuation work, see the commentator's *Railroad Valuation by the Interstate Commerce Commission,* and Chapter XIII, pp. 335-352, of *Railroads: Rates, Service, Management.* Evidence establishing the use of the "5%" formula appears at pages 348-349 of the latter volume.

[6] *McCardle, et al.* v. *Indianapolis Water Company,* 47 Sup. Ct. Rep. 144 (November 22, 1926).

Michigan Public Utilities Commission *v.* Michigan State Telephone Company[1]

PUBLIC UTILITY—TELEPHONE

Telephone Rates—*Confiscation of Property by Enactment Establishing Rates.* The Supreme Court of Michigan held that a state enactment, or regulations made under the authority of a state enactment, establishing rates for telephone service that would not admit of the telephone company's earning such compensation as under all the circumstances was just to it and the public, would deprive the company of its property without due process of law and deny to it the equal protection of the laws, and would therefore be repugnant to the Fourteenth Amendment to the Constitution of the United States.[2]

Telephone Rates—*Elements of Just Compensation.* The Supreme Court of Michigan decided that the chief elements of just compensation to a telephone company were: (*a*) operating expenses, including administration, labor, interest, taxes, certain items of repair, maintenance, and the like; (*b*) depreciation, physical and functional, including wear and tear of property by use, the constant destruction of property by earth's processes, and supersession and obsolescence of machines and structures by progress; (*c*) a fair return upon the present fair value of the property used and useful in public service. The court held that these elements, when determined, measured the rate to be paid by the public for the company's service.[2]

Telephone Rates—*Allowance for Depreciation of Property.* The Supreme Court of Michigan held that a telephone company was entitled to earn enough to meet the continuous depreciation of its plant and equipment, beyond ordinary current repairs and maintenance. It also held that the public utilities commission of the state, in fixing the rates to be charged the public for telephone service, should spread the amount of the depreciation, less salvage, over the years, and make an annual allowance in earnings that would be fair to the public and that would fairly compensate the company for the property consumed in service.[2]

Telephone Rates—*Rate Base for Valuation and Depreciation.* It was held by the Supreme Court of Michigan that the rate base for valuation of the property of a company supplying telephone service was not prudent investment cost or book cost, but present fair value, and that depreciation must be computed on the same base.[2]

Telephone Rates—*Deduction of Depreciation Reserve Fund in Computing Present Fair Value of Property.* The Supreme Court of Michigan de-

[1] Supreme Court of Michigan. Oct. 30, 1924. 200 N. W. 749.

[2] Headnote by Graduate School of Business Administration.

cided that a reserve set up by a telephone company for depreciation was definitely the property of the company, and that, when this reserve was invested in extensions and betterments, the company had the right to earn on it. The court held, therefore, that where a public utility commission's finding of the present fair value of the company's property involved all proper deductions for deterioration and depreciation, in determining the rate base the amount of the depreciation reserve fund should not be deducted from the sum found.[3]

Telephone Rates—*Reduction of Amount Paid under Valid Contract to Parent Company.* A contract between a telephone company and the company of which it was a subsidiary, under which it was required to pay the parent company 4½% of gross revenues in return for rental of telephones and other services, was upheld by the Supreme Court of the state and by the United States Supreme Court. In fixing the rates to be charged by the company for telephone service, the public utility commission of the state was therefore without authority to order a substantial reduction in the amount to be paid under the contract.[3]

Telephone Rates—*Allowance for Going Value in Determining Value of Property.* It was held by the Supreme Court of Michigan that a telephone company was entitled to an allowance for going value in determining the value of its property for rate-making purposes, and that the amount should be determined fairly by the rate-making body from the facts, including the financial history of the company.[3]

(1924)

Clark, C. J. Plaintiff, Michigan Public Utilities Commission, made in July, 1922, an order to establish rates of defendant, Michigan State Telephone Company. An amendment making the order more specifically applicable to Detroit was made later. Defendant refused to obey the order. It filed a bill in the United States District Court at Detroit. An interlocutory injunction issued. To compel obedience plaintiff instituted mandamus in the circuit court for Ingham County. Counsel agreed that plaintiff might apply to this court for an order requiring defendant to show cause why it should not comply with the commission's order, and that, if an order issued, proceedings in other courts would be stayed, the cause speedily brought to hearing here, and the whole matter submitted for decision. Plaintiff applied. The order issued September 5, 1922. Defendant answered:

> That the orders are wholly null and void and of no force and merit whatsoever, in that the rates prescribed therein are less than just and reasonable rates, and also are confiscatory of defendant's property used and useful in the furnishing to the public of the telephone service . . . . and said orders therefore seek to deprive the defendant of its property without due process of law, and deny defendant the equal protection of the laws in violation

[3] Headnote by Graduate School of Business Administration.

of its rights under the Fourteenth Amendment to the Constitution of the United States.

Reference was made to Hon. Guy M. Chester as special commissioner. After numerous sittings of the commissioner, filing of many briefs, argument, and the report of the commissioner, counsel finally brought the cause to hearing in our June, 1924, term. We have a record of over 3,000 pages, a 70-page opinion of the commission, an 80-page report of the special commissioner, and many briefs filed in behalf of the parties, the city of Detroit, and 13 other cities of the state.

That this opinion may be kept within bounds, only those facts which are important and essential to the questions considered will be stated, and they will be stated generally. . . . .

1. *Jurisdiction of This Court.* Mr. Justice Bird, to whom this case was assigned, has declined to consider the merits, stating that plaintiff must be turned out of court on this question. With his conclusion we do not agree. Counsel raise no question of jurisdiction. They concede it. It was invoked by plaintiff, whose petition for the writ of mandamus concludes:

> This petitioner prays further that this court immediately issue an order staying all proceedings under the said orders heretofore made by this petitioner and all actions for the enforcement of penalties for a violation of the same pending, and until the final determination of this proceeding in this in the manner provided by section 266 of the Judicial Code of the United States (U. S. Comp. St. § 1243).

No question is raised that the said section is applicable, nor that this is a proper suit in a proper state court, timely brought, requiring under the said section stay of proceedings in the Federal court, pending final determination of the cause here. It is our duty to dispose of the case on the merits. . . .

2. *Principles.* Language used in a railroad case *(Smyth* v. *Ames,* 169 U. S. 466, 18 S. Ct. 418, 42 L. Ed. 819) is applicable here:

> A state enactment, or regulations made under the authority of a state enactment, establishing rates for the transportation of persons or property by railroad that will not admit of the carrier earning such compensation as under all the circumstances is just to it and to the public, would deprive such carrier of its property without due process of law, and deny to it the equal protection of the laws, and would therefore be repugnant to the Fourteenth Amendment to the Constitution of the United States. While rates for the transportation of persons and property within the limits of a state are primarily for its determination, the question whether they are so unreasonably low as to deprive the carrier of its property without such compensation as the Constitution secures, and therefore without due process of law, cannot be so conclusively

determined by the Legislature of the state or by regulations adopted under its authority, that the matter may not become the subject of judicial inquiry.

What are the chief elements of just compensation to defendant? (*a*) Operating expense, including administration, labor, interest, taxes, certain items of repair, maintenance, and the like; (*b*) Depreciation, physical and functional, including wear and tear of property by use, the constant destruction of property by earth's relentless processes, and supersession and obsolescence of machines and structures by progress; (*c*) A fair return upon the present fair value of the property used and useful in public service.

These elements, when determined, measure the rate to be paid by the public for the service. Upon the issue of confiscation, a Federal question, decisions of the Supreme Court of the United States are controlling.

3. *Depreciation Charge.* As has been stated, before coming to the question of profit, the company is entitled to earn enough to meet the continuous depreciation of its plant and equipment, and this beyond ordinary current repairs and maintenance. To provide funds from earnings to offset this depreciation is a right and a duty of the directors of the company.[4] But the property is made up of many parts of varying lengths of life and of varying rates of depreciation. And progress, new invention, new design, new thought, constantly menace present-day machines and structures. A machine functioning efficiently today may be obsolete and inefficient tomorrow. The rate of depreciation changes with the age of the plant. Telephone lines are in danger of disaster from sleet and storm.

It is the difficult task of the commission to spread the amount of the depreciation, less salvage, over the years, and make an annual allowance in earnings that will be fair to the public, and that will fairly compensate the company for the property consumed in service. The particulars of this difficulty are fully set forth in Saliers on Depreciation, p. 131, and in opinion of Mr. Justice Brandeis in *Pacific Gas & Electric Co.* v. *City and County of San Francisco*, 265 U. S. 403, 44 S. Ct. 537, 68 L. Ed. 1075.

Respecting theory, purpose, and method of accumulating a depreciation fund there is a wide difference of opinion. See Hayes on Public Utilities, c. 9; Saliers on Depreciation, c. 7. Some hold that the fund belongs to the public. Others say that it is a trust fund, or quasi trust fund belonging to both the public and the utility, to be used for the replacement of invested property when the property is theoretically dead. But the fund is definitely the property of the utility.[5]

Some contend that the proper basis for valuation is prudent investment cost.[6] But it is settled that the rate base is present fair value

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[4] *Knoxville* v. *Water Co.*, 212 U.S. 1, 29 S. Ct. 148, 53 L. Ed. 371.

[5] *People* v. *Public Service Commission*, 204 App. Div. 73, 198 N. Y. S. 193.

[6] See dissenting opinion of Mr. Justice Brandeis, *S. W. Telephone Co.* v. *Public*

as defined in *Smyth* v. *Ames, supra,* and in the *Minnesota Rate Cases,* 230 U. S. 352, 33 S. Ct. 729, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, Ann. Cas. 1916A, 18. Computing depreciation (although perhaps convenient to accountants and bookkeepers) on investment cost, or book cost, as distinguished from present fair value, must be rejected. If the rate base is present fair value, then the depreciation base as to depreciable property is the same thing. There is no principle to sustain a holding that a utility may earn on the present fair value of its property devoted to public service, but that it must accept and the public must pay depreciation on book cost or investment cost, regardless of present fair value. We repeat, the purpose of permitting a depreciation charge is to compensate the utility for property consumed in service, and the duty of the commission, guided by experience in rate making, is to spread this charge fairly over the years of the life of the property. The commission found the present fair value of defendant's property used and useful in service to be $47,500,000. There was necessarily involved in this finding all proper deductions for deterioration and depreciation, and the commission so states. The total of depreciation, physical and functional, was found to be $9,500,000. The total of depreciation charge was also found to be $9,500,000, so that the total depreciation fund equalled the existing depreciation. The business of the company had grown. The plant, repaired and maintained, was efficient, rendering satisfactory service. The depreciation fund had been expended for extensions and betterments, for property the present fair value of which was included in the $47,500,000. The commission deducted the $9,500,000 depreciation fund, so invested, from the depreciated value of the property, $47,500,000, leaving $38,000,000, to which it added $1,500,000 for working capital, making the rate base $39,500,000. The commission did not determine present fair value on book value alone. With vehement criticism of the decisions, it professes to have followed *Smyth* v. *Ames* and other decisions of the United States Supreme Court, herein cited. It was not to deduct book figures of depreciation from book figures of investment. It says:

> If the reserve for depreciation is deposited in banks, the company might get 4% interest thereon. If it borrows money for capital purposes, it must pay 6% for it. The intelligent at once ask why the company should deposit its depreciation reserve of approximately $10,000,000 in banks and receive but 4% interest, and at the same time borrow a like sum and pay 6% interest therefor. Why not use the money yielding but 4% in place of that which costs the company 6%? The reserve for depreciation may be used for capital purposes, but it is none the less depreciation reserve. If the $10,000,000 was borrowed and used for capital purposes at 6% interest, the company would be entitled to earn at least 6% on it, because it cost that to get it. If the $10,000,000 of depreciation reserve is invested for capital purposes, the com-

Service Commission, 262 U.S. 276, 43 S. Ct. 544, 67 L. Ed. 981, 31 A. L. R. 807; Goddard on Fair Value of Public Utilities, 22 Mich. Law Rev. 777.

pany has the use of it for such purposes, without its stockholders making any capital contribution thereto. It costs the company nothing to get this $10,000,000. It is derived from rates paid by subscribers and users of its service, and, not having been obtained by capital contributions from stockholders, but from the public through earnings or revenues, the public ought not to be charged rates to pay a return to the company upon that which they themselves have contributed.

The accrued depreciation reserve paid by the public and reinvested in plant or property should not be made the basis of return to the stockholders. The total present value of the company's property should be decreased in the proportion which such reserve for depreciation bears to the total investment of the company, to ascertain the basis of return to the stockholders.

We think this erroneous. For the $9,500,000 of depreciation charge, the company lost $9,500,000 of its property, consumed in service. How can it be said that it cost the company nothing to get it? The amount received but compensated for the loss. The fund was the property of the company, and so invested it had the right to earn on it. Reliance is placed on language used in *Louisiana R. R. Commission* v. *Cumberland Telephone Co.*, 212 U. S. 414, 29 S. Ct. 357, 53 L. Ed. 577. The holding there might apply to a case where there was no deduction of depreciation in fixing the rate base, which method finds some support among writers, and in such a case it might not be proper treatment to permit a return on both the undepreciated value of the property and a depreciation reserve. Our examination leads us to think that Mr. Justice Peckham was there considering such a case. For a discussion of this case, see Whitten on Valuation of Public Service Corporations, 361, and see same author's review of cases in Chapters 18 and 20, same volume, and his Supplement of 1014. Chapter 18. It is said in Saliers on Depreciation, p. 418:

> It has been stated that the reserve is the property of the public, and therefore should not be permitted to earn a return. This is erroneous. The amount reserved is definitely the property of the company returned through the rates to offset accrued depreciation on plant, but which has not been deducted from cost. If the accrued depreciation were deducted from cost of plant in determining fair value then, on the contrary, extensions financed out of depreciation reserves ought to be included in fair value.

See, also, *People* v. *Public Service Commission, supra; Charleston* v. *Commission* (W. Va.) 120 S. E. 398; and see *Monroe Gas Light & Fuel Co.* v. *Mich. Public Utilities Commission, supra,* decided June 9, 1923, by Judges Denison, Tuttle, and Simons, who held that the commission has no right to deduct the amount of depreciation reserve, so invested, from present fair value in fixing the rate base.

The following from *N. Y. Telephone Co.* v. *Public Service Commission,* 300 F. 822, decided July 26, 1924, United States District Court, Southern District of New York.

These accumulated charges [depreciation reserve] are not a separate fund. The total bears no definite relation to the actual condition of the property; for one item may have been and was charged years ago against the cost of an article scrapped long since, while another was charged yesterday against one just entering upon its life of usefulness. In fact, the depreciation reserve is a piece of bookkeeping, a monthly charge against earnings, to provide means, not only of covering deterioration from use and time, but of minimizing, and only minimizing, future possible losses of any kind, from storm or fire to changes of fashion. The funds or credits thus reserved are, and always have been, expended in strengthening the company's useful property, but what particular property it is neither possible nor useful to ascertain. . . . . To deduct from the fair value of plaintiff's property the entire book reserve for depreciation, in order to reach a rate base, was error of law.

Counsel for defendant make the following pertinent suggestions:

If the company should sell its entire property this part (invested reserve) would be conveyed along with the rest. If the property of the new owner should be valued in a rate case, would some part of the fair value of the property found upon an appraisal be deducted because of the depreciation accounting of the former owner? Would the books or accounts of the former owner have any bearing upon a fair value of the property? Would not the fair value of the property be the same if the books were destroyed? If that is so, is not the fair value of the property in the hands of the present owner the same, regardless of the books? If the company were mortgaging the property, would it mortgage the whole? Can there be any doubt about its right to mortgage all the property to which it has title, regardless of where it got the money to pay for it? If the property were mortgaged and the bondholders should foreclose, would they foreclose upon less than the whole?

The correction respecting the depreciation fund will, for the purposes of this opinion, increase the rate base from $39,500,000 to $49,000,000, including working capital. This necessitates a denial of the writ. But other questions must be discussed.

4. Complaint of the rate of return, fixed by the commission at 7%, and of the allowance for working capital, $1,500,000, is not pressed and will be passed.

5. *4½% Contract.* Between the American Telephone & Telegraph Company and subsidiary companies, of which defendant is one, exists a contract by which defendant is required to pay and has paid 4½% of gross revenues in return for rental of telephones, and other services sufficiently set forth, by this court in *City of Detroit* v. *Michigan Railroad Commission,* 209 Mich. 395, 177 N. W. 306, and in which this contract was sustained. Doubtless a contract made between these companies, the major company owning nearly all of the stock of the de-

fendant, should be scrutinized closely, and this rule is recognized by the courts.

The commission ordered a very substantial reduction in the amount to be paid under the contract. Subsequently the contract was considered by the Supreme Court of the United States in *S. W. Telephone Co.* v. *Public Service Commission, supra,* decided May 21, 1923, and sustained, the court saying:

> The important item of expense disallowed by the commission ($174,048.60) is 55% of the 4½% of gross revenues paid by plaintiff in error to the American Telephone & Telegraph Company as rents for receivers, transmitters, induction coils, and so forth, and for licenses and services under the customary form of contract between the latter company and its subsidiaries. Four and one-half per cent is the ordinary charge paid voluntarily by local companies of the general system. There is nothing to indicate bad faith. So far as appears, plaintiff in error's board of directors has exercised a proper discretion about this matter requiring business judgment. It must never be forgotten that while the state may regulate with a view to enforcing reasonable rates and charges, it is not the owner of the property of public utility companies, and is not clothed with the general power of management incident to ownership. The applicable general rule is well expressed in *State Public Utilities Commission ex. rel. Springfield* v. *Springfield Gas & Electric Company,* 291 Ill. 209, 234. "The commission is not the financial manager of the corporation, and it is not empowered to substitute its judgment for that of the directors of the corporation; nor can it ignore items charged by the utility as operating expenses unless there is an abuse of discretion in that regard by the corporate officers." See *Interstate Commerce Commission* v. *Chicago Great Western Ry. Co.,* 209 U. S. 108; *Chicago, Milwaukee & St. Paul R. R. Co.* v. *Wisconsin,* 238 U. S. 491; *People ex. rel.* v. *Stevens,* 197 N. Y. 1.

The contract was also sustained in *Houston* v. *Southwestern Telephone Co.,* 259 U. S. 318, 42 S. Ct. 486, 66 L. Ed. 961, decided May 29, 1922.

It is now contended by plaintiff that the record in the case at bar as to material facts is so substantially different from the record in our own case just above cited, and the records in the two cases above cited from the United States Reports, as to warrant a contrary holding. After a careful examination of the records and briefs in all the cases, we conclude that plaintiff's contention cannot be sustained. The cases cited are decisive of the question presented. The order in this respect is erroneous.

6. *Depreciation.* The commission fixed the rate of depreciation at 4% to be computed on the total of fair value less land and right of way. (The depreciation fund was not deducted from the base for depreciation.) Defendant complains of this, and cites a long list of

cases in which a higher rate was fixed. Our examination of cases indicates a diversity of holding on the subject; part of the diversity is due to difference of opinion, part to difference in facts considered. Probably in a majority of the cases a higher rate has been sustained. But this is a question of fact depending largely upon the character, nature, and age of the property in question, and illuminated somewhat by the experience of the company respecting the subject. And it must not be overlooked that, as the cases show, many minor replacements and repairs and maintenance are made and charged to operating expense. In practice, this contributes considerably toward keeping the property intact. The commission in its opinion reviews the question at length, and states fully the experience of the company respecting the rate of depreciation and the accumulation of the fund. The rate fixed is comparatively low, but in the light of the facts of this case, we must decline to hold it confiscatory.

7. *Fair Value.* The rules and elements for consideration in determining fair value are so well known to those interested in the question that we shall not quote from the cases.[7]

The company was organized in 1904 and took over, from the purchaser at foreclosure sale, the property of a former telephone organization. As to what should be held to be the actual book cost to defendant of this property there is conflict of opinion, due to detail and method of purchase and of financing the purchase. We find the then cost in fact to be $6,740,026. The net additions since that time are $41,305,402, so the book cost is $48,045,428, the funds having been provided by capital contribution and reserve or earnings invested. The total of outstanding stock securities and indebtedness on December 31, 1921, was $41,703,732. The assessed value of the property for taxation fixed by the state board of assessors in 1921 was $27,500,000. Appraisals and computations were made to show cost as at December 31, 1920, of reproduction new on average prices of a ten-year period, 1910-1919, of a five-year period, 1915-1919, and of the year 1919. To these were added the net subsequent additions for 1921, adjusted to the average price of the particular period. The computations allow for observed physical deterioration only as distinguished from full depreciation found by the commission as stated. The special commissioner, correcting certain arithmetical errors, states that:

> The following figures show how these values are to be derived, and the correct figures therefor:

[7] See *Smyth* v. *Ames, supra; Minnesota Rate Cases, supra; Darnell* v. *Edwards,* 244 U.S. 564, 37 S. Ct. 701, 61 L. Ed. 1317; *San Diego Land Co.* v. *National City,* 174 U. S. 739, 19 S. Ct. 804, 43 L. Ed. 1154; *Detroit, etc., R. Co.* v. *Railroad Commission,* 171 Mich. 335, 137 N. W. 329; *Southwestern Bell Telephone Co.* v. *Missouri Public Service Commission, supra; Bluefield Waterworks* v. *Public Service Commission,* 262 U.S. 679, 43 S. Ct. 675, 67 L. Ed. 1176; *Georgia Railway & Power Co.* v. *Railway Commission,* 262 U.S. 625, 43 S. Ct. 680, 67 L. Ed. 1144; *Brooklyn Borough Gas Co.* v. *Public Service Commission of New York,* P. U. R. 1918 F, 335, opinion by former Justice Charles E. Hughes.

	Ten-Year	Five-Year	One-Year	One-Year Dep.
Michigan exchanges....	$15,534,746	$17,395,426	$22,902,806	$19,590,641
Toll..................	9,590,750	10,584,251	13,098,455	10,567,424
Total..............	$25,125,496	$27,979,677	$36,001,261	$30,158,065
Wisconsin exchange.....	25,650	28,187	36,551	27,178
	$25,151,146	$28,007,864	$36,037,812	$30,185,243
Common use...........	$ 2,107,780	$ 2,499,783	$ 2,997,469	$ 2,943,340
Detroit...............	$22,167,506	$27,099,263	$35,088,257	$32,948,035
Total..............	$49,426,432	$57,606,910	$74,123,538	$66,076,618

Per cent condition on basis of last two figures, 89.14; observed depreciation, 10.86%.

To the appraisal costs of December 31, 1920, the additions during 1921 must now be added.

At the top of page 33 of the commissioner's opinion are given the actual additions of $4,314,155 . . . . and conversion of these by composite index figures to five- and ten-year average. The index figure is .8081 for five-year and .6668 for ten-year as referred to one year. These are added to the preceding totals with the following results:

	Ten-Year	Five-Year	One-Year	One-Year Dep.
Total Dec. 31, 1920........	$49,426,432	$57,606,910	$74,123,538	$66,076,618
Add 1921......	2,876,624	3,486,234	4,314,155	4,314,155
Total.......	$52,303,056	$61,093,144	$78,454,693 (A)	$70,390,773 (B)

These figures replace those entitled 1-*d* to 4-*d* on page 35 of the commission's opinion and the—

Ten-year average	$52,303,056
Five-year average	61,093,144
One-year average	78,454,693

are the figures under the designation "Appraised Value," "One-Year Period," and so forth. Under 1-*c* and 2-*c*, page 35 of the commission's opinion, the condition per cent found to exist between 3-*d* and 4-*d* (now *A* and *B* in preceding tabulation) is applied to the five- and ten-year averages with the following results:

B divided by *A* is 89.7%. This, applied to the other cost, gives:

Ten-year average depreciation......................	$46,915,841
Five-year average depreciation......................	54,800,550
One-year average depreciation......................	70,390,773

This is the depreciated value for each of the above periods. These are also corrected figures for items 1-*e*, 2-*e*, and 4-4 of page 35 of the commission's opinion.

We think his finding and computation as to this evidence of value to be substantially correct. Fair value, $47,500,000, added to full depreciation as found by the commission, $9,500,000, gives $57,000,000 as the undepreciated value of the physical property, which figure is about midway between undepreciated value on the ten-year basis, of which basis favorable comment is made by plaintiff, and undepreciated value on the five-year basis, which basis is urged by defendant. We quote further from the report respecting additions to plant and equipment during recent years:

The net additions during the years:

1915	$ 462,539.01
1916	2,104,262.76
1917	3,240,098.71
1918	3,420,272.39
1919	6,248,723.64
1920	5,439,672.42
1921	4,314,155.04
Total	$25,229,723.97

During the years 1915 to 1921, inclusive, there was added to the plant $25,229,723.97. This was during the period affected by war prices. In other words, the plant was doubled in cost expenditures during that period.

From before 1914 to the middle of 1915, a comparative normal or usual level of prices was 100 or 100%. At the close of 1915 it was 120; during 1916, 120 to 145 and 175; during 1917, 145 to 225; during 1918, 165 to 235; during 1919, 230, then down to 185, then up to 245; during 1920, 220 to 275; during 1921, 150; lower since that.

The above is said to be of general commodity prices. Defendant insists that the curves of prices for particular items in question are as follows:

Taking 1915 as 100, 1916 is 125, 1917 is 158, 1918 is 192, 1919 is 210, 1920 is 239, 1921 is 204, and the average for the five years, 1915 to 1919, is 157. If the average had been determined for the seven years, 1915 to 1921, the average would have been higher.

It may be noted that while it is assumed in this case that the 1914 price level was about normal, it is said to have been 50% above the 1897 level. See note, *Southwestern Telephone Company* v. *Public Service Commission, supra,* at page 303 (43 S. Ct. 544), where there is a discussion of probable future decline in price levels. The commission also had before it prophecy as to future prices. Some comment is made of nonproductive exchanges, particularly, and of type of equipment, station losses, and competitive exchanges, which might call for discussion, but, as they do not affect the result here reached,

and, we think, may not arise again, we pass them without discussion.

Considering all the evidence before us, the elements entering into a judgment of fair value *(Smyth* v. *Ames, supra),* according to each element due weight *(Georgia Ry.* v. *R. R. Commission, supra),* without slavish adherence to reproduction cost new *(Minnesota Rate Cases, supra),* noting the trend of prices *(Newton* v. *Consolidated Gas Co.,* 258 U. S. 165, 42 S. Ct. 264, 66 L. Ed. 538), and probable future costs *(Southwestern Telephone Co.* v. *Public Service Commission, supra),* recalling that a large part of this property was acquired during the war period and at very high prices, we must decline to hold that a valuation of the physical property of the company at the sum of $47,500,000, exclusive of working capital, will work confiscation.

8. *Going Value.* "That there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced, is self-evident. This element of value is a property right, and should be considered in determining the value of the property, upon which the owner has a right to make a fair return, when the same is privately owned, although dedicated to public use."[8]

The commission made no finding of any amount for going value, stating that the subject had been given such consideration as it was entitled to receive. As we read the opinion of the commission, the consideration given was a denial of anything for going value, for the reason that the cost of attaching business had been paid out of earnings. The special commissioner reported:

> Unless defendant by clear and convincing proof has shown that the expense of attaching business has not been paid in the overhead expenses or otherwise by the public, or, if not so paid, then that the commission has not taken it into consideration in fixing the rate base of fair value of property, the finding of the commission on going concern value must stand. The commission did consider it, and found it had been paid by the public in the operating expense.

Assuming that the cost of attaching business has been paid out of earnings, there is no evidence that the funds were not earned lawfully, no evidence that they were not rightfully the property of the company. Considerable or attractive dividends have not been paid. A denial of anything for going value on this ground cannot be sustained. That past high or excessive rates offer no bar to enjoining a present noncompensatory rate is a question we need not discuss.

It is said in *Lincoln Gas Co.* v. *Lincoln, supra:*

> Again, we question the propriety of the master's treatment of "going value," which he seems to have estimated at less than otherwise he would have placed it upon the theory that the company's

[8] *Des Moines Gas Co.* v. *Des Moines,* 238 U.S. 153, 35 S. Ct. 811, 59 L. Ed. 1244. And see *Adams Express Co.* v. *Ohio,* 166 U.S. 185, 17 S. Ct. 604, 41 L. Ed. 965, and *Denver* v. *Denver Union Water Co.,* 246 U. S. 178, 38 S. Ct. 278, 62 L. Ed. 649.

> business had been developed, at the expense of the public, in the expenditure of past earnings exceeding a fair return upon the capital invested, and this without any finding, or any clear evidence to which our attention has been called, that past earnings were excessive.[9]

The company was entitled to allowance for going value, the amount to be determined fairly by the commission from the facts, including the financial history of the company.

9. That an order of the commission is applicable to franchise contract rates in the cities of St. Joseph and Benton Harbor, is settled by the authorities and statutes reviewed in the opinion of the commission.

In briefs and argument, counsel on both sides, and for the city of Detroit and the other cities, have covered the questions very fully and thoroughly, and have aided the court greatly. In fairness to the commission, it should be said that the record before us contains evidence which was not before commission.

The bill of fees and expenses of the special commissioner, when approved by this court, will be paid by the state.

Writ denied, without costs.

SHARPE, STEERE, FELLOWS, *and* MOORE, JJ., concurred with CLARK, C. J.

[Mr. Justice BIRD dissented in part, holding that the court should not review the merits of the commission's orders by mandamus proceedings and concluding by saying:]

> The "order to show cause" should be dismissed because improvidently issued. No steps having been taken to review the order of the commission by the statutory appeal within the statutory time, the rates fixed by the order of the commission should be declared to be in force.

WIEST, J. (dissenting). I cannot concur in the opinion of the Chief Justice nor in that of Mr. Justice BIRD.

This court has jurisdiction. Whether rates fixed, by or under legislative authority, are unreasonable is a judicial question. Rate making, for public utility service, is primarily a legislative function; it may be delegated to a commission created and empowered by legislative enactment, but rates established must admit of judicial review as to lawfulness. Identical jurisdiction was entertained by the Supreme Court of Kansas in *State ex. rel. Hopkins* v. *Southwestern Bell Telephone Co.* 115 Kan. 236, 223 P. 771, P. U. R. 1924D, 388. The order of the Public Utilities Commission, and the findings and conclusions of the special commissioner confirmatory thereof, are presumed to be correct in fact

[9] See, also, *Monroe Gaslight Case, supra; Newton* v. *Consolidated Gas Co., supra; Bluefield Waterworks Case, supra; Georgia Railway & Power Co. Case, supra; Galveston Electric Co.* v. *Galveston,* 258 U.S. 388, 42 S. Ct. 351, 66 L. Ed. 618; *Houston Case, supra.*

and in law, but the exceptions to the report of the special commissioner, and the assertion that the order of the utilities commission is unreasonable and confiscatory, requires this court to examine the evidence and come to an independent conclusion thereon. We do not, of course, fix rates, but only determine whether the rates fixed are unreasonable and therefore confiscatory.

The commission invoked the judicial power of this court, and this enabled the Telephone Company to invoke protection of its property rights. One test of jurisdiction is the effect of judgment herein between the parties before the court. Under the issues presented, a determination by independent conclusion, upon the evidence, will bind the parties.[10]

I dissent from the opinion of the Chief Justice upon the question of depreciation reserve. The depreciation reserve was something more, in this instance, than a mere book entry. A utility, not acting under public regulation, may set up a depreciation reserve and upset the same at will, but a utility under public regulation, asking for and receiving a return for the purpose of establishing a replacement fund on a life table basis, has received from ratepayers a fund, the regulatory commission was bound to grant, and a correlative duty rests upon the company to employ the fund for the purpose it was asked for and received, and for none other. The creation of this depreciation reserve, or, more correctly speaking, replacement fund, was empowered by law, and the rate was approved and the purpose thereof declared by commission order. It was authorized for a purpose, accumulated for a purpose, and diverted therefrom. It was impressed with the purpose of maintaining the rate base and amortizing the investment, and could not be employed to increase the rate base. A depreciation reserve is permitted and set up to protect property rights, and not to be otherwise capitalized. It maintains interests of the investors, but it does not create any added interest. The ratepayers may not be required to establish a depreciation reserve and then held as underwriters, to pay a return thereon if the reserve is employed to extend and enlarge the plant.

Depreciation reserve is not a part of the capital paid back to the company for the purpose of increasing the value used and useful in supplying service, and therefore swell the rate base. It is paid to replace capital investment used up, in fact or theoretically, in the service rendered. It is to keep good the investment and to save the investors from loss, but not to increase in any way the rate base upon which the users are made to pay a return. There seems to be no deferred maintenance involved here. There is evidence of lessening of worth arising from wear and the action of the elements and obsolescence, and there is also evidence of appreciation. This reserve was intended to amortize the investment. Instead it has been employed to extend and enlarge the investment. This, instead of replacing equip-

[10] *Van Wert Gas Light Co.* v. *Ohio Public Utilities Commission et al.*, 299 F. 670, P. U. R. 1924 C, 722.

ment, adds thereto, and, by increasing the rate base, swells the return to be made by the ratepayers. It constitutes no increase of investment by the owners, but is a contribution exacted from the ratepayers for a lawful purpose, diametrically opposed to increase of value, and this prevents the same from being diverted to capital investment.

I do not understand that the depreciation reserve in question has been employed to meet current depreciation. If it had been it would not increase the rate base. The reserve was given to maintain the integrity of capital investment. The law exacts it for such purpose, and will not permit it to be employed in extensions, and thereby first compel the ratepayers to create a fund, and thereafter pay a rate thereon to the company. The service now rendered is practically 100% use of the present equipment. This negatives past and prospective depreciation beyond current maintenance. But it is said there is a limit to the usefulness of equipment, and a life table is set up. This is mere theoretical depreciation. This plant, as a whole, will never run, until some day, like the "one-hoss shay," it will go all to pieces. The theory of a depreciation reserve, as distinguished from a replacement reserve, in the case of a utility like defendants, which has reached its gait, is indefensible, duplicates current expense of maintenance, creates a fund based on theory and never supported by eventual conditions, and offers a temptation to employ the same to swell the capital investment and increase the rate base. The replacement reserve, having been invested in additions and taken into consideration in determining the fair value of the property used and useful, should be taken out. It was taken out by the commission, and I approve of the deduction. Existing observable depreciation was considered by the commission and deducted in fixing the present value. This was proper.

Going Concern Value. The history of this company precludes right to a percentage addition for going concern value. It is impossible to find the value of the tangible assets without consideration of the established business. The commission was right in so giving consideration to the subject, and the valuation fixed adequately reflects going concern value.

American Telephone & Telegraph Company Contract. The American Telephone & Telegraph Company owns all of the common stock, and nearly all of the preferred stock, of the Michigan State Telephone Company. No court has yet held that a rate must be established to care for the 4½% contract, regardless of the value of services rendered by the American Telephone & Telegraph Company. Suppose the contract called for 50% of the gross revenues of the Michigan State Telephone Company? Except as intensified, the question would be the same. In considering this contract the distinction must be kept in mind between mere contract cost and the value of services actually rendered. Corporate management, and not courts, make contracts, but courts, and not corporate management, determine, in a rate case, what return will cover the services rendered under a contract, and will not say a return fully compensatory for actual services rendered is

unreasonable, and therefore confiscatory, because less than such a contract as we have here stipulates.

We find a hand reaching for rate returns, the fingers of which are those of the local company, but the manipulating arm is that of the American Telephone & Telegraph Company, which owns the local company. As blind old Isaac said: "The voice is Jacob's voice, but the hands are the hands of Esau."

The possible vice in this contract is not met by saying that the relation between the companies demands strict scrutiny of the dealings, but the contract is valid, and management of the utility must be left to the owners. What purpose does strict scrutiny serve if the result thereof may not, in any event, affect contract stipulations?

The ratepayers must compensate for the services rendered. Tangible property and intangible property rights enter into the measure of service rendered. What service is rendered ratepayers under the American Telephone & Telegraph contract? The commission measured what they considered the actual services rendered. Defendant company stands upon its contract with its owner. The commission planted decision upon actual services rendered.

Case law, text-writers, and experts are at variance upon the questions involved. I have given my views without larding the opinion with supporting authorities.

I approve of the findings of the commission. The writ should be granted.

McDonald, J., concurred in the result.

Commentary: This case is peculiarly interesting because it illustrates the helplessness of persons untrained in accounting when they try to interpret accounts. It at the same time illustrates the unfortunate habit, among accountants, of using terms with ambiguous meanings. Even the majority of the court merely "think" the treatment of depreciation by the commission to be erroneous. It seems to have occurred to no one that the figures are an indication of facts, and that the facts can be read from the accounts. No one needs to fall back on "opinions" when the facts are at hand.

The matter in dispute is the nature of the "depreciation reserve." This is sometimes spoken of as a "fund" and is said to have been "invested." Right here, possibly, is the origin of a large part of the confusion. We cannot tell, of course, how far the interchangeable use of these terms ("reserve," "fund," "investment") is due to careless use of words, and how far it is due to careless thinking. That they are not interchangeable, but either opposites or complements, is sufficiently clear on the mere realization that funds and investments are always on the asset side of balance sheets and reserves always on the opposite side.

The commission maintained that the depreciation reserve of $9,-500,000 "cost the company nothing," for "it was derived from rates paid by users of its service." Did the commission think that this reserve was an asset, though on the credit side of the balance sheet? In order to understand what it was, we must see how it happened to be on the books.

The usual method of building up reserves for depreciation is to credit the account representing the reserve, and to charge to operating costs, such sums as seem to represent the shrinkage in the value of property, through wear and tear, obsolescence, depletion, and so forth, after taking into account such repairs and replacements as have been made. This charge to operations is treated as a cost, exactly as are sums paid for repairs, wages, insurance, taxes, and so forth, and no profits are deemed to have been made unless the income is sufficient to meet not only the out-of-pocket expenses but this depreciation charge as well. Why? Because depreciation represents the consumption of property in the conduct of business as truly as do repairs, wages, insurance, or taxes. The only difference between repairs and depreciation is that in one case you spend your cash and thus keep (keep up) your other property, and in the other case you spend (consume) your other property and thus keep your cash. One is as truly cost as is the other, for each is as truly a consumption of value as is the other. Our reserve for depreciation, then, represents merely a consumption of assets, a hole that has been made in the assets, an overvaluation of assets. It would be simpler and would avoid much confusion, if for depreciation the bookkeeping entries would charge operating expenses (subdivision, depreciation) and credit the account for the assets depreciated, just as they charge operating expenses (subdivision, repairs) and credit cash; but the custom of crediting a reserve account has grown up in order to preserve on books of account the original charge to the asset account (presumably cost) for statistical use, and to preserve in the depreciation-reserve account the estimated depreciation from that original figure. The reserve for depreciation, then, instead of representing assets, as the commission appears to interpret it, actually represents a hole in the assets—an overvaluation representing partial exhaustion. The term "reserve" indicates the need of reserving certain assets to make good the inroads made into other assets—that is, since certain assets are overvalued, other assets of equivalent value must be reserved from distribution as dividends, else capital will be impaired.

Singularly, however, sometimes reserves have a different origin—though not usually reserves for depreciation. Sometimes a company desires to reserve assets from distribution as dividends not because other assets are overvalued, but because sound financial policy requires, or

recommends, the accumulation of profits. Then also are reserves set up on the credit side of the balance sheet, but they are merely surpluses with special labels to indicate ultimate purpose—as reserve for expansion, reserve for extraordinary depreciation, reserve for establishment of a pension system. These, it should again be noted, do not represent assets, for they are on the wrong side of the balance sheet. They represent the source of assets—namely, profits. The difference between these two types of reserve is fundamental—a difference of kind and not of degree. One is a device to protect original investment from exhaustion through inadvertence, through failure to take account of exhaustion of property, and must be met out of gross income before there can be any net income: the other is a device for applying net income, *after* all costs, including depreciation, have been met out of gross income, to various future ends.

The commission in this case apparently assumed the reserve for depreciation to be of the type described in the paragraph above—for they say that it is not cost to the company, but contribution by customers. Unfortunately the terms commonly used in accounting are so ambiguous that, on the face of it, the reserve in question here might be of that type, for most accountants use the term "reserve" indifferently for the two types of things just described. A few, however, confine this term to surpluses reserved, and use the term "allowance," which automatically implies a deduction, for those which represent holes or overvaluations in assets. If the reserve in this case had been called "allowance for depreciation," possibly confusion would not have arisen.

How do we know that here the term "allowance" would have been appropriate? How do we know that it did not represent profits arising from rates that gave the company a surplus cloaked under the claim that it represented consumption of assets? "The commission found the total of depreciation, physical and functional, to be $9,500,000," and "the balance in the depreciation fund [*sic*] equaled the existing depreciation." So the reserve account actually represented the exhaustion of assets in rendering service to the public; it had been built up by credits which were made when operating expenses were charged for that exhaustion; and, though the public had paid for that exhaustion in the rates charged, the public had done so exactly as it paid for any other costs, like repairs, wages, and so forth; and the reserve did not represent any excess payment of the public over costs (i.e., profits), but merely the amount of exhaustion, of some types of property, which must be offset by an increase in other types of property if capital was not to be depleted. In this case we are told that the amount of the depreciation reserve had been invested in new property, so that the

depreciation in one group of assets was offset by investment in another group.

Let us summarize the facts as they have now developed. The company was gradually exhausting certain types of property beyond what current repairs and replacements could make good—some of this being obsolescence rather than physical exhaustion of certain property. For this, rates charged to customers were presumably compensatory. Instead of crediting accounts representing the property exhausted, the company credited a reserve account representing the hole made in the property. The sums collected from its customers in payment for such exhaustion of property it could not wisely use to replace the property exhausted, for the property was not yet exhausted completely. The company therefore offset such partial exhaustion in one set of equipment by adding new pieces of equipment elsewhere, so that the value of the property as a whole was maintained. The cost of these new pieces was either added to the property accounts, or charged against the reserve for depreciation, and they amount to the same thing, for one adds to the gross figure and leaves the hole account (the reserve) untouched, increasing the net, and the other leaves the gross figure untouched but reduces the hole account, again increasing the net. The final result is that: (1) the public has had the benefit of the partial exhaustion of certain property; (2) it has given compensation; (3) the company has used that compensation to add new property of value equivalent to the exhaustion of old property, preserving but not increasing (through any of these operations) its actual capital investment; and (4) the accounts show a reserve for depreciation to indicate by how much the actual value of the property is less, because of exhaustion in public service, than the book value.

These are the facts disclosed by the accounts. We have the further fact that the commission valued the properties of the company used and useful in public service, after allowing for depreciation, at $47,-500,000. Let us now observe the contentions. The commission deducted the reserve for depreciation of $9,500,000 from the $47,500,000 named above, and fixed a rate base of the resulting $38,000,000 (omitting $1,500,000 for working capital, which is outside of our discussion). The company demanded that the full $47,500,000 be used as a rate base, and counsel contended that the reserve for depreciation was not deductible because (at least he seems to imply this) it was a mere bookkeeping entry not affecting the value of the property. The minority opinion of the court declared the reserve to be "something more than a book entry," and wished it deducted from the $47,500,000. At this point it is well to observe that a third contention has often been made in similar cases, and even upheld by the courts; namely,

that the full value of the property new, without any deduction for either actual depreciation or depreciation reserves, should be used as a rate base.[11] The theories of the relation of depreciation to a rate base, then, come in essence to three: (1) both actual depreciation and any reserve for depreciation should be deducted from the value new; (2) actual depreciation should be deducted, but not in addition any reserve for depreciation; (3) no deductions from the value new should be made for depreciation.

The first of these theories is that of the commission and of the minority of the court, and is based on the premise that the reserve consists of assets taken from the public in excess of the amount required to compensate for costs, and is added to the company's capital investment. Not the company, but the public has provided this capital, is the contention. The trouble with this theory is that the premise is contrary to fact. The reserve does not represent either assets or the source of assets: it represents the negation of assets—the absence of the assets reported on the other side of the balance sheet, the overvaluation due to the fact that though the assets have been exhausted the original figure is preserved for statistical purposes. Though it is true that the sums got from customers to compensate for depreciation have gone into new assets, these new assets have *not added* to the capital investment; they are merely *substitutions* for the assets consumed (which are kept on the books for statistical purposes, but shown by the reserve account to be depreciated). The minority of the court, however, is quite right in saying that the reserve for depreciation is more than a mere bookkeeping device and the counsel for the company, though he is wrong in implying that it is only a bookkeeping device, is right in saying that it does not affect the value of the property. The simple fact is that it truly represents, when properly kept (as apparently it was here), the statistical overvaluation of the property, which is exactly what it is meant to do. The real flaw in the position of the commission and of the minority of the court is that the actual depreciation has already been deducted once in obtaining the figure of $47,500,000, and to deduct the reserve for depreciation of $9,500,000 is to deduct the same thing twice—for the reserve is only the bookkeeping record of the fact of actual depreciation.

An interesting fact is that the commission appears to have been misled by a court decision (the Louisiana case cited) which did deduct

[11] In the case of *New York and Queens Gas Company* v. *Newton* (U. S. District Court, 269 Fed. 277, December 13, 1920), the master refused to make any deduction for accrued depreciation, for a depreciation reserve he deemed unnecessary and unsound. Though this was not a point at stake in the case, and hence only an *obiter dictum,* since the same master was appointed in seven other cases and his decision in this case was upheld by the court, the point of view is obviously deserving of consideration.

reserve for depreciation, for it failed to observe that in this Louisiana case the deduction was presumably made from a figure of gross property values from which no allowance for actual depreciation had yet been made. As a matter of fact, in most cases the reserve for depreciation is deductible, for in most cases the gross figure (cost, or reproduction-cost new, or going value) is used basically. This Michigan case chanced to be one of those in which, since the approach was different, the treatment should be different.

The decision of the court is clearly based on the facts as found from the accounts; but unfortunately the opinion accompanying that decision is expressed in such ambiguous language that it hardly clarifies the situation. "Charges," "funds," "costs," and "losses" are so vaguely used that we can hardly wonder that the court merely "thinks" the contention of the commission erroneous. The minority of the court was left free to think otherwise, merely because the facts were left undetermined.

The third contention, that no deduction should be made for depreciation from the gross rate base, though it did not appear in this case, is common with a large group of engineers. Granting the facts about the reserve for depreciation as indicated above, claim is made that, since property wears out or becomes obsolete and provision must be made for replacement, operating companies must be allowed fair rates of return not only on actual investment less depreciation, as upheld in the decision of the court in the case under consideration, but on a sum in addition sufficient to replace the property in original condition—in other words, on the value of the property *before* depreciation is deducted.

This is one of the numerous illustrations of an argument that is theoretically sound but practically untenable. The fact is that in very few industries is the plant, or other fixed assets, as a whole ever restored to a virgin condition. Only when all equipment happens to be bought at the same time and to have the same mortality, or when equipment is bought at different times but happens to have varying mortalities inversely with the lateness of purchase, does this happen—and that is virtually never. (Once in a great while something approaching it happens to a textile mill.) It is certainly hardly conceivable with a public utility. After an industry is once started, it not only will never again be 100% new (that is, undepreciated), but it requires no fund to make it 100% new. Since, in all large industries, some articles of equipment are long-lived and some short-lived, the normal operating condition uses much property that is near the stage of retirement, much that is in middle age, and much that is new—an average of perhaps 60% newness, or 75%, or 90%. The normal operating circumstance, more-

over, as we have seen, is that the public pays for the depreciation and thus provides funds to compensate for property consumed (depreciated). Yet we have seen that the industry will never actually fill the hole made by depreciation, for its property will never again be wholly new. In other words, its normal, inevitable, operating condition is one with a large hole in its assets, and the public has paid it for the hole which has been made.

If the business is not expanding, it is soon overcapitalized: for it started with a capitalization adequate, we will suppose, for a condition of universal newness; it has now attained a normal condition of partial newness; and the public has returned to it, in rates compensating for depreciation, the capital exhausted but never again needed. How can the public be asked to pay rates that will compensate for the use of capital that is no longer employed—because it has once been paid back to the company and is not reemployed for replacement? The capital no longer needed for public service should be either returned to stockholders, or invested for a yield elsewhere; but in the latter case it is not employed for public use and therefore should not enter into the calculation of rates for public service. In other words, the depreciation which is normal, bringing the property down to a normal operating condition, should be deducted when we try to find the value of capital employed for public benefit and entitled to a fair return.

Yet, of course, most public utilities are not standing still. They are either declining or expanding. In the former case, when capital assets are exhausted, replacement does not occur, and the sums which the public pays for the exhaustion of capital (depreciation as an operating expense, met out of rates charged) are set free for investment outside or for the retirement of stock. So no longer need the original value of the property be used in a rate base, but only such value less the depreciation.

Now let us examine a business that is expanding. Capital is released through the exhaustion of a part of the original value, for the exhaustion is recouped through charges for service and the capital does not need to be put back into the property for replacements, for the plant never again needs to be 100% new. This creates a fund out of which expansion can be provided (at least in part). In other words, as was indicated in the case under discussion, the new property, though an addition to the number of *units* of property, is not an addition to the *value* of property, but is a substitution for the portion of value of old units exhausted in public service. To put this more concretely, the exhaustion, by depreciation, of $200,000 of the original value of any $1,000,000 plant, should provide, through service rates, for the purchase of $200,000 of new equipment for expansion if needed, so that

instead of a $1,000,000 plant without depreciation, as originally, the utility now has a $1,200,000 plant with a $200,000 hole in it (represented by the reserve for depreciation). Of course the actual investment is the same in either case, and the public should pay the same rates if it is to pay the same fair return on the investment. So here, too, the depreciation should be deducted from the value of the assets new. This is the ground for the decision cited in the Louisiana case, unfortunately used by the commission in a case entirely different. It is also the ground on which the court upheld the company, except that the deduction used was the actual depreciation rather than the reserve for depreciation—but as the reserve was the bookkeeping record of the actual depreciation, the two were the same thing. The commission deducted both figures, not realizing that they were thus making the same deduction twice.

One more misapprehension is common in this connection. The property, we are often told, is as good as new—in perfect operating condition—in better operating condition than when new. Even when that is granted, the necessity for an allowance for depreciation remains. Even though an automobile runs better after a mileage of 5,000 than when new, as a matter of fact it has a future life of less than it originally had by 5,000 miles; and it is this fact, as affecting its value, that accounting must record. The exhaustion of future productive life always affects value.

To summarize this rather long commentary, rates for public service should compensate for the exhaustion of capital assets (as they virtually always do); this exhaustion is commonly recorded on the credit side of balance sheets as "reserve for depreciation," "accrued depreciation," "allowance for depreciation," or something of that sort; it commonly represents not assets or profits, but a hole in assets, an overvaluation of assets; what the utility received as compensation for this exhaustion is included in items on the assets side of the balance sheet, though seldom separately labeled; such assets may be cash, or a special fund, or may be new property; but in any case they are merely substitutes for the exhausted property, and do not add to the total property—that is, the total property is now the property shown on the balance sheet *minus* the item of depreciation; and to find a fair rate base one must deduct the depreciation from the gross value of the property.

It will be noted that we are not concerned in this case with the problem of finding a fundamental rate base—whether original cost, reproduction value new, or something else. The deduction for depreciation is logically called for under any theory that uses value of the property new, with or without an addition for "going value," for its

fundamental rate base. Only in the rare cases when the reserve for depreciation means actual surplus rather than overvaluation of assets, or in those cases where the depreciation is so heavy that funds must be provided for bringing the property back to normal operating age and efficiency, can a rate base be found without deducting the allowance for depreciation (assuming the amount to be correctly calculated and entered on the books). In those two sorts of cases an entirely new set of conditions is to be faced, which, of course, is another story having nothing to do with the case under discussion.

November, 1925 W. M. C.

Twin State Gas & Electric Company

PUBLIC UTILITY—GAS AND ELECTRICITY

Operating Costs—*Low Operating Costs Preferred to Low Initial Cost.* A gas and electric company which needed additional power in one of its divisions decided to secure the power by constructing a transmission line between that division and a division 52 miles distant, rather than by installing an additional steam turbo-generator. The company's estimates indicated that, although the steam station would cost less, initially, than the transmission line and would be less difficult to construct, the transmission line would make possible more economical operation.

(1921)

An engineering investigation made in 1921 indicated that there were two feasible methods by which the Twin State Gas & Electric Company could provide the additional power service required at the company's St. Johnsbury division. The first was the installation of an additional steam turbo-generator at the steam station in St. Johnsbury; the second was the construction of a 52-mile transmission line to connect the St. Johnsbury division with the Berlin division.

The Twin State Gas & Electric Company, which was a subsidiary of the Middle West Utilities Company, operated electric lighting, power, and gas properties in Maine, New Hampshire, Vermont, and New York. The St. Johnsbury division served St. Johnsbury, Passumpsic, Concord, Danville, and Lunenburg, Vermont. The industrial power load in St. Johnsbury was large for a community of its size. The division earned about one-third of its gross revenue in 1920 by supplying energy to power customers; it sold 71% of its output to this class of users.

The Berlin division served Berlin, Gorham, and Milan, New Hampshire. These communities did not have many industrial companies, except the large paper mills which generated their own power. In 1920 this division derived 82% of its gross revenue from the furnishing of lighting, heating, and cooking service; it sold 58% of its output for these uses. The paper mills consumed small quantities of surplus hydroelectric energy when the division could supply it at a low price.

In 1921 the St. Johnsbury division had 5 low-head hydro-

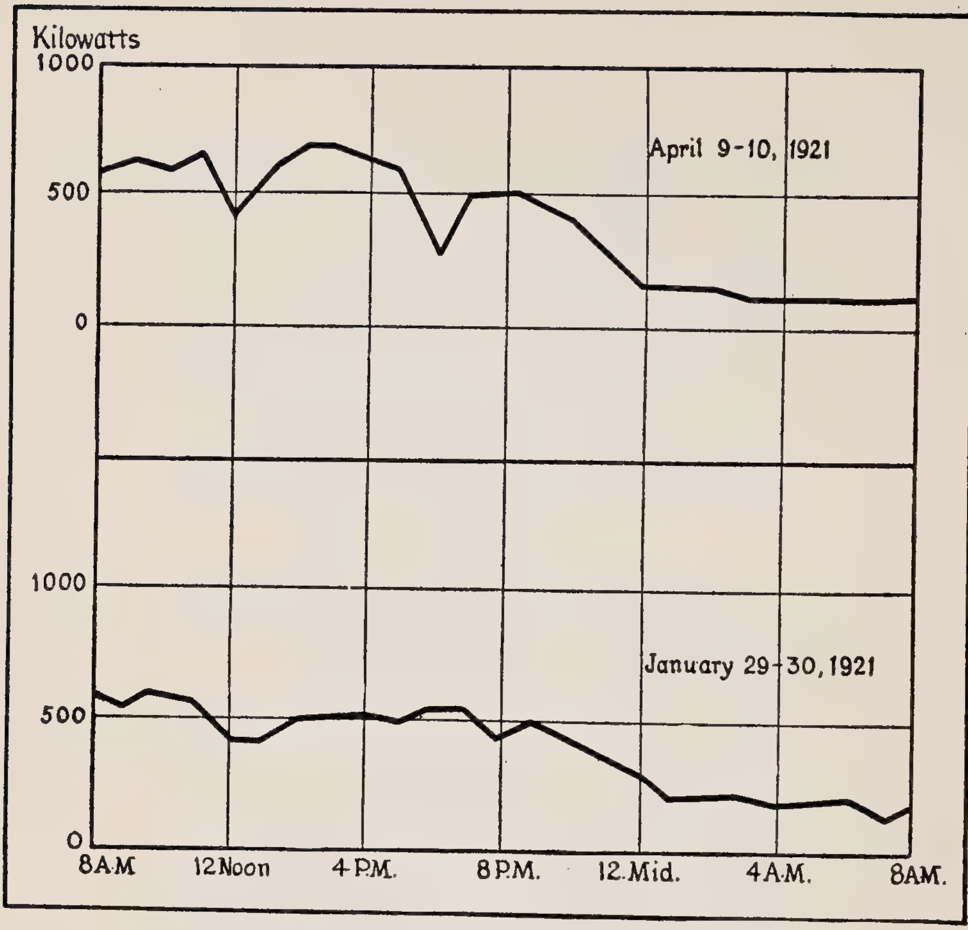

Exhibit 1: Typical load curves in 1921 of St. Johnsbury Division of Twin State Gas and Electric Company.

electric plants on the Passumpsic River, with an installed capacity of 1,427 kilowatts. This capacity was sufficient to utilize the available river flow throughout the year, except during a 10-week period in the spring. The minimum stream flow during periods of low water was enough to generate only about 300 kilowatts. At one of the hydroelectric stations near the load center of the division the company had installed a 500-kilowatt steam turbine unit as an auxiliary to the hydroelectric turbines. The maximum load in 1921 was about 1,200 kilowatts, and occurred during the day time in December. Exhibit 1 shows typical daily load curves for the St. Johnsbury division in the spring and winter of 1921.

The Berlin division received its energy from a 1,280-kilowatt hydroelectric station at Gorham, which utilized a 14-foot head of water on the Androscoggin River. The flow of this river was

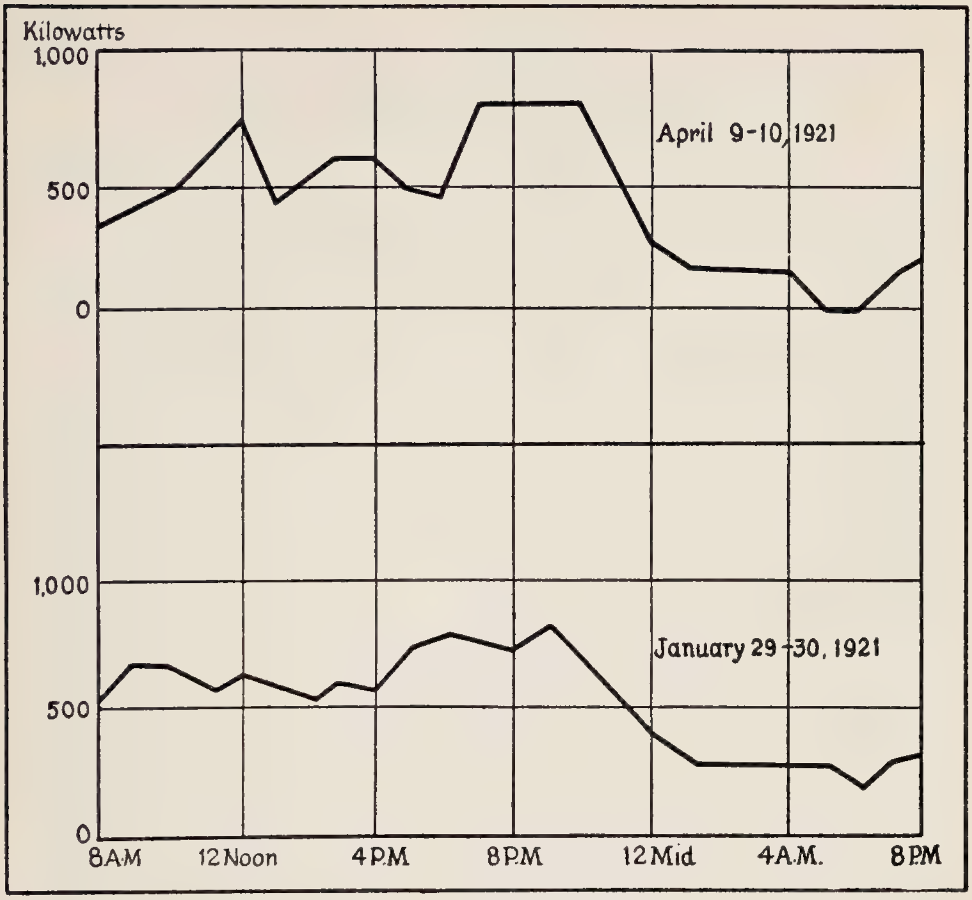

Exhibit 2: Typical load curves in 1921 of Berlin Division of Twin State Gas and Electric Company.

comparatively uniform throughout the year, and the company could increase the capacity of the Gorham station to 3,000 kilowatts by the installation of more efficient units and the dredging of the tail race. The maximum load in 1921, 1,000 kilowatts, occurred in the evening in December. Exhibit 2 presents typical daily load curves in 1921 for the Berlin division.

The company estimated the cost of adding a 750-kilowatt turbo-generator to the steam plant at St. Johnsbury at $112,749, about $61,000 less than $174,361, the estimated cost of the transmission line and substations. The time required for construction would be about the same for the transmission line as for the steam station. Exhibits 3 and 4 present the detailed estimates of the cost of those two plans.

The company estimated that, with an addition to the steam

Exhibit 3

Estimated Construction Cost of Addition to Steam Plant at St. Johnsbury Division of Twin State Gas & Electric Company

Items	Amounts
800 ft. standard-gauge railroad track	$ 2,000
Additional coal storage, including concrete dump pocket, incline and retaining wall, 100 yd.	1,800
Boiler-plant building addition, concrete footings and pilasters, brick panels, tile, tar and gravel roof to match present structure, 25 ft. x 35 ft. x 30 ft. high	3,500
Generator-room building addition, construction similar to above, including removal of existing west wall, 10 ft. x 34 ft. x 18 ft.	1,375
Two 300-h.p. B. & W. water-tube boilers, hung on steel, including settings, grates and fittings	18,000
Boiler-room piping, stack breeching, feed-water heater, feed-water pump	7,500
Clearing floor area, excavation for generator and condenser foundations, 100 yd.	800
Foundation, 50 yd.	900
750-kw. steam turbo-generator unit, erected complete with switchboard and electrical connections	26,000
1,500 sq. ft. surface condenser, complete with auxiliaries and erected	19,000
Generator-room steam and water piping, air ducts, etc.	4,000
Steel stack with foundations and flue connections erected	8,000
Subtotal	$ 92,875
Interest during construction, 5%	4,643
Engineering, 3%	2,786
Office expense (construction), 2%	1,857
Casualty insurance, contractors' bond, etc.	5,805
Contractors' profit, 15% on items suitable for contract only	4,783
Total Estimate	$112,749

plant, in 1922 the cost of supplying energy to St. Johnsbury would be 5.3 cents per kilowatt hour, in 1923, 4.8 cents, and in 1924, 4.3 cents. Exhibit 5 shows the company's computations of these estimates.

The company estimated that energy delivered at St. Johnsbury from Gorham would cost, including fixed charges on the transmission line, 2.67 cents per kilowatt hour in 1922, 2.53 cents in 1923, and 2.38 cents in 1924. The company based these estimates on a switchboard cost of 1.5 cents per kilowatt hour at Gorham, and upon the expectation that the St. Johnsbury division would sell energy at specified periods of the year to the Berlin division. Exhibit 6 gives the company's computations of these estimates.

Analysis of the load curves and other operating conditions for several preceding years and a forecast of subsequent load growth

Exhibit 4

Estimated Construction Cost of Tie Line and Substations Necessary to Connect St. Johnsbury and Berlin Divisions of Twin State Gas & Electric Company

Items	Amounts
St. Johnsbury No. 2 station, substation, wooden-pole and timber structure with knife-blade disconnecting switches, choke coils and concrete foundations	$ 2,000
Three 500-kw. 2,300/33,000-volt oil-insulated, self-cooled, outdoor-type transformers with four 2½% taps	7,125
33,000-volt, three-phase outdoor-type oxide-film lightning arrester	1,350
52 miles of transmission line, 35-ft., 7 in. top, Northern white cedar or chestnut poles, spaced 200 ft. to 250 ft. apart, No. 2 copper, Locke 5233 or Ohio Brass 11623 porcelain insulators:	
1,300 poles, framed and delivered to place, at an average cost of $12 each	15,600
3,900 insulators, at $2.50 each	9,750
2,600 cross-arms, at $1 each	2,600
3,900 Keystone galvanized pins	3,120
300 spring-thread galvanized ground-wire pins	650
1,300 O. B. 9403 or Locke 4451 insulators	260
Two 33,000-volt, three-phase outdoor-type oxide-film lightning arresters, en route, with concrete foundations, wooden pole and timber structure, TD-227 disconnecting-type expulsion fuses, protective fence	5,000
1,300 sets pole hardware, exclusive of pins	2,600
650 anchors and guys, complete at $5 each	3,250
159,000 lb. of No. 2 medium-hard-drawn bare copper wire at 16½ cents delivered	26,235
55,000 lb. of $\frac{5}{16}$ in. galvanized-iron strand	3,750
260 ground rods and connections at $4	1,040
1,300 telephone-line cross-arms, complete with hardware, pins and insulators at $2.50 each	3,250
31,400 lb. of No. 9 iron telephone wire	2,200
Two telephone sets, insulating transformers and protective apparatus, drainage coils, etc.	400
Gorham substation wooden-pole and timber structure with knife-blade disconnecting switches, choke coils and concrete foundations	2,250
Two 750-kw. 2,300/33,000-volt outdoor-type, T-connected, two- to three-phase transformers with 4 2½% taps on high-tension winding	7,125
33,000-volt, three-phase, oxide-film lightning arrester	1,350
Labor of erecting, 50 miles, at $425 per mile	21,250
Right-of-way, including salary and expenses right-of-way agent and clearing right-of-way of growth, 50 miles, at $400 per mile	20,000
Subtotal	$142,155
Subtotal Brought Forward	$142,155
Engineering, 3% (exclusive of right-of-way)	3,665
Interest during construction, 5%	7,108
Office expense (construction), 2%	2,843
Casualty insurance	6,375
Contractors' profit, 10% (exclusive of right-of-way)	12,215
Total Estimate	$174,361

Exhibit 5

Estimated Cost of Energy at St. Johnsbury Division of Twin State Gas & Electric Company if Supplied by Addition to Steam Plant at St. Johnsbury

	1922	1923	1924
Steam peak, kilowatts	950	1,100	1,300
Steam output, kilowatt hours	1,500,000	1,700,000	2,000,000
Annual steam load factor, percentage	18	18	18
Fuel per kilowatt hour (pounds)	5.25	5.00	4.75
Price of coal (per ton)	$ 9.25	$ 8.75	$ 8.25
Total cost of fuel	$36,400.00	$37,200.00	$39,200.00
Steam plant labor	$ 7,200.00	$ 8,600.00	$ 9,800.00
General steam station expense	$ 3,600.00	$ 4,200.00	$ 4,800.00
Steam operating expense	$47,200.00	$50,000.00	$53,800.00
Total steam expense, operating plus fixed charges	$79,447.00	$82,247.00	$86,047.00
Total steam production cost per kilowatt hour (cents)	5.30	4.80	4.30

revealed that if the company constructed a transmission line, it would be unnecessary to operate the steam plant at St. Johnsbury except in emergencies; the Gorham hydroelectric station could supply all the surplus energy which the St. Johnsbury division required. From the combined generating stations, furthermore, approximately the same quantity of surplus energy would be available annually for sale to the paper mills in New Hampshire as the company had sold in any previous year.

Because of the low load factor, with an addition the steam plant at St. Johnsbury would require from 5.25 pounds to 4.75 pounds of coal per kilowatt hour during the three-year period for which the company made an estimate. The high price of coal, which ranged from $9.25 to $8.25 a ton, and the difficulty

Exhibit 6

Estimated Delivered Cost of Energy Interchanged between St. Johnsbury Division and Gorham by Proposed Transmission Line of Twin State Gas & Electric Company

	1922	1923	1924
Gross delivery from Gorham to St. Johnsbury, kilowatt hours	1,500,000	1,700,000	2,000,000
Energy charge at 1½ cents per kilowatt hour delivered	$22,500	$25,500	$30,000
Annual fixed charges on investment present St. Johnsbury steam station	$11,100	$11,100	$11,100
Annual fixed charges on apportioned Vermont investment in transmission line	$ 8,060	$ 8,060	$ 8,060
Total gross cost of energy to St. Johnsbury	$41,660	$44,660	$49,160
Gross cost per kilowatt hour to St. Johnsbury (cents)	2.78	2.63	2.46
Gross return, kilowatt hours, from St. Johnsbury to Gorham	600,000	600,000	600,000
Gross receipts to St. Johnsbury for return energy at 0.27 cents per kilowatt hour at St. Johnsbury switchboard	$ 1,620	$ 1,620	$ 1,620
Net cost of energy to St. Johnsbury	$40,040	$43,040	$47,540
Net cost of energy to St. Johnsbury per kilowatt hour (cents)	2.67	2.53	2.38

of transporting coal during the winter because of the heavy snows, aggravated this condition.

There would be difficulties, however, in the construction of the transmission line. Since the only practicable route lay across the Presidential Range of the White Mountains, and since owners of land and summer camps in this territory probably would offer serious objections to the plan, the cost of a private right-of-way was likely to exceed the estimate. Sturdy construction and special safeguards, furthermore, would be necessary to insure reliability of service during the winter snow storms.

Operation of the transmission line would involve interstate transmission of energy. The statutes of New Hampshire and Vermont did not prohibit such transfer, however, and the executives expected no difficulty in securing authority from the state public utilities commissions to build and operate the line.

The Twin State Gas & Electric Company decided to build the transmission line because of an estimated ultimate saving of approximately 2 cents per kilowatt hour in the cost of energy at St. Johnsbury. The company built the line early in 1922, and placed it in operation during the summer. The total cost, including right-of-way and substations, was $165,000. The cost of right-of-way exceeded the estimate, but savings in labor items reduced the total cost. In 1924 the company enlarged and modernized the hydroelectric station at Gorham. The company expected that actual operating economies in the future would exceed those estimated.

Commentary: This case is interesting as illustrating the possible advantages of interconnection, because it shows the saving due to diversity of two kinds:

1. The diversity between the loads of the St. Johnsbury and the Berlin divisions; and
2. The diversity between the stream flow on different watersheds.

Both are important and, if intelligently studied and wisely used, these two diversity factors combined will result in lower costs due to more rapid capital turnover.

The case should not, however, be taken as a precedent, because it is doubtful whether in this case the decision was wise. The estimated cost of the transmission line is only about $3,000 per mile, which is wholly inadequate to cover the cost of a reliable high-tension trans-

mission line across the mountains. Weather conditions in that area are very severe; 66,000 volts should have been used to give reasonable operating efficiency, and duplicate lines are required to furnish reliable service. If unreliable, such a service is of doubtful value.

January, 1927 **P. C.**

Heriot, Dalkeith & Moffat Street Railway Company[1]

PUBLIC UTILITY—STREET RAILWAY

Street Railway Fares—*Increased to Meet Rising Cost of Operation.* A street railway company, serving the suburbs of a large city but not extending into the city, secured the greater part of its revenue from holiday traffic, which, due to the increasing number of automobiles, was decreasing. In 1918, when the company was collecting three 5-cent fares and one 6-cent fare from four different zones, the cost of operation was increasing steadily, due to the rising level of prices. To meet its increasing costs, in June, 1918, the company raised the fare 1 cent in each zone, but revenues in the next few months showed a decrease, as compared with a similar period in 1917. The company then considered petitioning the Public Service Commission for an increase in fares of at least 4 cents in each zone or for permission to cease operation, but decided instead to ask only for a further increase of 1 cent in each zone.

(1918)

The Heriot, Dalkeith & Moffat Street Railway Company had been organized in 1899. It was situated near an eastern city with a population of about 900,000, and the 19¾ miles of line ran substantially parallel with one of the railroads which served that city. The street railway served the three suburbs, Heriot, Dalkeith, and Moffat, but did not run into the city, although it connected at one point with the street railway of the city. The population of these suburbs, as shown by Exhibit 1, increased about 27% from 1900 to 1915.

Exhibit 1

Population of Heriot, Dalkeith, and Moffat, 1900-1915

Town	1900	1905	1910	1915	Increases
Heriot	6,578	7,054	7,924	8,611	30.9%
Dalkeith	4,584	4,702	4,797	5,606	22.3
Moffat	5,442	5,959	6,316	6,928	27.3
	16,604	17,715	19,037	21,145	27.4%

The greater part of the street railway's revenue was obtained from holiday traffic on Saturday and Sunday; the district was

[1] Fictitious name.

a favorite resort for picnickers from the city. In 1909 the competing railroad had established a 15-mile zone around the city whereby commuters in this zone could buy 12-ride tickets at reduced rates. The Heriot, Dalkeith & Moffat Street Railway Company had decided that it was impossible to make a similar rate and ceased competing for this commuting traffic after 1910. No competitive jitney lines had ever been established, but the use of private automobiles by holiday seekers had materially reduced the income of the company. In 1918, first-mortgage bonds, amounting to $250,000, had been outstanding since they were issued in 1903. The interest charges on these were $12,500 a year. Common stock, on which no dividends ever had been paid, amounted to $300,000.

The cost of operation in the years 1900 to 1915 had been rising steadily, but the increase in the price level after 1915 made it almost impossible for the company to keep the costs below the gross revenue. Exhibits 2, 3, and 4 show the trend of operating expenses and operating revenues from 1900 to 1917.

EXHIBIT 2

TREND IN OPERATING EXPENSES AND OPERATING REVENUES OF HERIOT, DALKEITH & MOFFAT STREET RAILWAY COMPANY, 1900-1917

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Deductions from Income	Surplus or Deficit for the Year
1900	$14,535	$21,244	$ 6,709*	$ 1,261	$ 7,970*
1901	18,563	24,991	6,428*	4,856	11,284*
1902	25,133	25,261	128*	7,265	7,393*
1903	37,231	31,378	5,853	5,768	85
1904	72,864	59,638	13,226	19,584	6,358*
1905	78,198	63,169	15,039	21,205	6,166*
1906	86,344	61,599	24,745	23,665	1,080*
1907	84,666	66,828	17,838	25,438	7,600*
1908	90,020	73,031	16,989	26,824	9,835*
1909	80,117	55,591	24,526	24,872	346*
1910	55,813	38,767	17,046	18,678	1,632*
1911	92,817	58,534	34,283	25,545	8,738
1912	95,006	59,006	35,304	23,396	11,908
1913	94,615	65,352	29,263	24,255	5,008
1914	95,224	65,204	30,020	25,079	4,941
1915	91,465	68,842	22,623	23,749	1,126*
1916	92,958	71,241	21,717	23,258	1,541*
1917	88,469	78,690	9,779	24,326	14,547*

*Deficit.

In 1918 every means of reducing expenses had been considered carefully and there seemed to be no possibility of solving the problem in this way. Even maintenance had been neglected to an unusual extent. The only method whereby the company could continue to operate seemed to be to increase the fares. The

company then was collecting three 5-cent fares and one 6-cent fare from the different zones that had been established in 1915, when the number of zones had been increased from three to four, in order to provide a higher passenger revenue without inconveniencing more than necessary the passengers who rode for a short distance. Prior to 1915 the fare had been 6 cents in each of the three zones. This change in the fare system had not resulted in a greatly increased revenue. In Exhibit 5, gross earnings by days of the week from August 9 to December 31, 1915, that part of the year when increased fares were in effect, are compared with the similar period in 1914.

The unsatisfactory experience of 1915 was a primary factor in the manager's proposal for an increase in fares in 1918. If the

EXHIBIT 3

OPERATING EXPENSES OF HERIOT, DALKEITH & MOFFAT STREET RAILWAY COMPANY, 1909-1918

	1909	1910	1911	1912	1913
1. WAYS AND STRUCTURES					
a) Maintenance of Way	$ 493	$ 3,852	$ 5,639	$ 6,446	$ 7,713
b) Maintenance of Electric Lines	1,111	827	911	996	838
c) Buildings, Fixtures, and Grounds	575	195	165	345	234
Total—Ways and Structures	$ 2,179	$ 4,874	$ 6,715	$ 7,787	$ 8,785
2. EQUIPMENT					
a) Maintenance of Cars	$ 1,798	$ 988	$ 1,647	$ 1,685	$ 2,698
b) Maintenance of Electric Equipment of Cars	3,324	804	1,260	1,064	1,272
c) Miscellaneous Equipment Expenses	185	202	566	312	492
d) Depreciation of Equipment	....	....	....	....	....
Total—Equipment	$ 5,307	$ 1,994	$ 3,473	$ 3,061	$ 4,462
3. POWER					
a) Power Plant Buildings	....	....	....	....	....
b) Fixtures and Grounds	....	....	....	....	....
c) Maintenance of Power Equipment	....	....	$ 738	$ 507	$ 2,025
d) Power Plant Employees	....	....	3,501	3,702	3,774
e) Fuel for Power	....	....	7,400	7,195	7,492
f) Other Power Supplies and Expense	....	....	507	557	605
g) Power Purchase	....	....	2,503	2,102	2,727
Total—Power	$17,915	$14,715	$14,649	$14,063	$16,623
4. CONDUCTING TRANSPORTATION					
a) Superintendence of Transportation	$19,473	$14,179	$ 2,079	$ 2,188	$ 2,229
b) Conductors, Motormen, and Trainmen	....	....	17,339	16,949	17,500
c) Miscellaneous Transportation Expenses	1,720	1,954	2,305	2,232	2,191
Total—Conducting Transportation	$21,193	$16,133	$21,723	$21,369	$21,920
5. TRAFFIC					
a) Traffic Expense	....	....	....	....	....
Total—Traffic	....	....	$ 74	$ 85	$ 120
6. GENERAL AND MISCELLANEOUS					
a) General Expenses	$ 7,247	$ 5,407	$ 6,676	$ 7,545	$ 8,086
b) Injuries and Damages	1,686	1,593	3,026	3,351	2,661
c) Insurance	2,086	838	1,318	1,349	1,572
d) Stationery and Printing	445	431	196	274	305
e) Store, Garage, and Stable Expenses	112	83	121	171	201
f) Rent of Tracks and Facilities	355	197	293	341	294
g) Rent of Equipment	382	238	267	308	320
h) Rent of Equipment and Other Buildings	533	53	....	....	....
Total—General and Miscellaneous	$12,846	$ 8,840	$11,897	$13,339	$13,439
Grand Total—Operating Expenses	$59,440	$46,556	$58,531	$59,704	$65,349

fare were raised 1 cent in each zone, however, the management was apprehensive of a decrease in the number of car riders, with a probable decrease in revenue. The increase, furthermore, would be especially unfair to the passengers who rode only a short distance in one zone. There was, in addition, the possibility that the Public Service Commission of the state might object to an increase.

The public was interested in the amount of fare it paid rather than in the welfare of the company. On the other hand, the executives believed passengers should pay for the cost of operation of the road. This they had not been doing since 1914. Without trial, the company was unable to calculate the effect of an increase in fares on the number of passengers carried. The

EXHIBIT 3—(*continued*)

OPERATING EXPENSES OF HERIOT, DALKEITH & MOFFAT STREET RAILWAY COMPANY, 1909-1918

	1914	1915	1916	1917	1918
1. WAYS AND STRUCTURES					
a) Maintenance of Way	$ 8,988	$10,898	$ 7,406	$ 7,581	$ 6,050
b) Maintenance of Electric Lines	1,128	1,404	1,505	792	762
c) Buildings, Fixtures, and Grounds	177	78	216	286	172
Total—Ways and Structures	$10,293	$12,380	$ 9,127	$ 8,659	$ 6,984
2. EQUIPMENT					
a) Maintenance of Cars	$ 1,949	$ 2,059	$ 3,410	$ 1,669	$ 3,271
b) Maintenance of Electric Equipment of Cars	1,593	1,733	1,796	2,847	2,288
c) Miscellaneous Equipment Expenses	248	40	311	110	303
d) Depreciation of Equipment	....	1,677	2,078	1,642	1,642
Total—Equipment	$ 3,790	$ 5,509	$ 7,595	$ 6,268	$ 7,504
3. POWER					
a) Power Plant Buildings	....	$ 13	$ 63	$ 2	....
b) Fixtures and Grounds	....	....	....	....	....
c) Maintenance of Power Equipment	$ 490	664	781	1,282	$ 821
d) Power Plant Employees	3,987	4,047	4,819	5,281	6,804
e) Fuel for Power	8,348	7,608	8,432	14,739	14,731
f) Other Power Supplies and Expense	566	315	474	426	429
g) Power Purchase	2,174	2,088	3,131	3,612	3,575
Total—Power	$15,565	$14,735	$17,700	$25,342	$26,360
4. CONDUCTING TRANSPORTATION					
a) Superintendence of Transportation	$ 2,333	$ 2,389	$ 2,615	$ 2,751	$ 3,046
b) Conductors, Motormen, and Trainmen	18,315	18,165	18,782	19,408	19,294
c) Miscellaneous Transportation Expenses	2,273	2,550	2,102	2,442	2,738
Total—Conducting Transportation	$22,921	$23,104	$23,499	$24,601	$25,078
5. TRAFFIC					
a) Traffic Expense	....	....	....	....	....
Total—Traffic	$ 96	$ 47	$ 2	$ 32	$ 125
6. GENERAL AND MISCELLANEOUS					
a) General Expenses	$ 8,230	$ 8,853	$ 6,887	$ 7,439	$ 7,382
b) Injuries and Damages	1,892	2,403	3,575	3,409	4,441
c) Insurance	1,342	1,297	1,447	1,464	1,750
d) Stationery and Printing	222	339	360	258	348
e) Store, Garage, and Stable Expense	237	316	343	260	481
f) Rent of Tracks and Facilities	287	291	356	339	454
g) Rent of Equipment	326	67	345	345	63
h) Rent of Equipment and Other Buildings	....	....	....	....	....
Total—General and Miscellaneous	$12,536	$13,566	$13,313	$13,514	$14,919
Grand Total—Operating Expenses	$65,201	$69,341	$71,236	$78,416	$80,970

Exhibit 4

Operating Revenue of Heriot, Dalkeith & Moffat Street Railway Company, 1909-1918

	1909	1910	1911	1912	1913
1. Revenue from Transportation					
a) Passenger Revenue	$79,643	$55,167	$88,158	$88,433	$88,154
b) Special Car Revenue	....	....	....	945	1,302
c) Mail Revenue	199	150	200	200	200
Total	$79,842	$55,317	$88,358	$89,578	$89,656
2. Revenue from Other Railway Operations					
a) Station and Car Privileges	$ 275	$ 459	$ 456	$ 563	$ 437
b) Rent of Tracks and Facilities	....	5	7	14	10
c) Rent of Equipment	....	....	147	243	199
d) Rent of Buildings and Other Property	....	33	32	40	164
e) Power	3,763	....	2,845	5,466	4,148
Total	$ 4,038	$ 497	$ 3,487	$ 6,326	$ 4,958
Total—Operating Revenue	$83,880	$55,814	$91,845	$95,904	$94,614
Operating Ratio	70.86	83.41	63.72	62.25	69.07

	1914	1915	1916	1917	1918
1. Revenue from Transportation					
a) Passenger Revenue	$89,876	$88,785	$88,088	$84,230	$76,893
b) Special Car Revenue	1,049	786	658	635	402
c) Mail Revenue	200	200	50	....	....
Total	$91,125	$89,771	$88,796	$84,865	$77,295
2. Revenue from Other Railway Operations					
a) Station and Car Privileges	$ 247	$ 246	$ 246	$ 246	$ 245
b) Rent of Tracks and Facilities	6	3	22	11	3
c) Rent of Equipment	170	....	12	28	11
d) Rent of Buildings and Other Property	230	88	137	95	11
e) Power	3,446	3,356	1,346	3,224	737
Total	$ 4,099	$ 3,688	$ 1,763	$ 3,604	$ 1,007
Total—Operating Revenue	$95,224	$93,459	$90,559	$88,469	$78,302
Operating Ratio	68.47	74.19	78.66	88.64	103.41

increase of 1 cent did not preclude the possibility of at least a small increase in revenue. The management decided, therefore, to petition the Public Service Commission for an increase of 1 cent in each zone. The increase was allowed by the Public Service Commission and went into effect on June 15, 1918.

Exhibit 5

Comparison of Daily Gross Earnings of Heriot, Dalkeith & Moffat Street Railway Company, 1914 and 1915

Days	1914	1915	Increase	Decrease
Monday	$ 4,767	$ 4,544	$...	$223
Tuesday	4,032	4,383	351	...
Wednesday	4,304	4,374	70	...
Thursday	4,733	4,767	34	...
Friday	3,947	4,262	315	...
First five days of week	$21,783	$22,330	$547	...
Saturday	5,285	5,638	353	...
Sunday	8,847	8,409	...	$438
Entire week	$35,915	$36,377	$462	...

Exhibit 6

Monthly Passenger Fare Revenues of Heriot, Dalkeith & Moffat Street Railway Company, 1910-1918

Month	1910	1911	1912	1913	1914
January	$ 4,896	$ 5,618	$ 5,276	$ 5,986	$ 5,467
February	4,643	4,972	5,274	5,311	5,046
March	5,588	5,675	5,901	6,372	5,796
April	6,114	6,354	6,253	6,326	6,174
May	7,449	8,684	7,637	7,080	9,079
June	7,711	8,401	8,635	9,412	8,903
July	10,991	11,051	9,338	10,616	9,972
August	9,905	9,428	8,992	10,712	10,032
September	8,294	8,910	8,475	8,417	8,702
October	7,617	7,687	8,141	7,120	8,195
November	5,918	6,296	6,398	6,585	6,496
December	5,716	6,163	6,302	6,050	5,916

Month	1915	1916	1917	1918
January	$ 5,714	$ 6,178	$ 6,118	$ 5,619
February	5,058	5,734	5,620	5,197
March	5,659	6,197	5,933	5,875
April	6,027	6,613	6,295	5,540
May	7,700	7,796	6,653	6,759
June	7,504*	7,644	7,621	8,126
July	9,526	9,260	9,885	8,570*
August	9,136	9,644	9,477	8,426
September	8,870	8,603	8,054	6,970
October	8,234	8,061	7,145	5,326
November	6,509	6,288	5,680	5,196
December	6,152	6,664	5,718	.....

*Fare changed at this date.

After a few months, it became apparent that not only was there no increase in revenue, but, as shown by Exhibit 6, there was an actual decrease compared with a similar period of the preceding year. This decrease was not entirely due to the change in fare, however, but could be attributed in part to the increased number of automobiles.

In December, 1918, the company's unfavorable experience with the 1-cent raise in fare in June seemed to indicate that another similar raise would not extricate the company from its financial difficulties. As other possible remedies, the company might petition the Public Service Commission for an increase of at least 4 cents in each zone, resulting in three 10-cent fares and in one 11-cent fare, or it might petition for permission to cease oper-

ation. The management did not wish to admit the failure of the company by following the latter procedure if any other solution was possible. If the suggested 4-cent raise in fare caused the number of passengers to decrease to such an extent that the gross revenues were not increased materially, no profit would be obtained. There was also the question of whether the Public Service Commission would allow so large an increase, and whether it might not be wise for the company to ask for a larger increase in the expectation of reaching a compromise of 4 cents.

The executives decided not to apply for a cessation of operations, nor did they ask for a 4-cent increase in fares. They believed that such an increase could not be obtained from the Public Service Commission, and that it was wiser to ask for a smaller increase. The company secured a raise of 1 cent for each zone, which went into effect on December 15, 1918. Exhibit 7 shows the company's operating revenue and costs during December.

Exhibit 7

Operating Revenue and Costs of Heriot, Dalkeith & Moffat Street Railway Company, December, 1918

Operating Revenue	$78,304
Operating Expenses	80,730
Net Operating Revenue	2,426*
Deductions from Income	23,832
Deficit for the Year	26,258

*Deficit.

In the months following, the company's revenue decreased and the expense of operation began to exceed the revenue. In April, 1919, the company was forced into receivership. The receiver continued to operate the road and attempted to place it on a profitable basis. On August 15, 1919, the fare was again raised 1 cent in each zone, and this increase resulted in an increase in revenue. The increase was not enough, however, to meet the higher costs of operation under rising prices, and the company's expenses continued to exceed its income. Exhibit 8 gives the monthly passenger fare revenues of the company during 1918. In December, 1919, the receiver recommended to the Public Service Commission that the railway cease operations and that the property be sold for what it would bring. The commission

Exhibit 8

Monthly Passenger Fare Revenue of Heriot, Dalkeith & Moffat Street Railway Company, December, 1918 to December, 1919

1918	
December	$5,278
1919	
January	5,017
February	4,765
March	5,431
April	5,776
May	6,816
June	7,858
July	7,736
August	9,625
September	7,607
October	6,547
November	5,968
December	5,838

acted upon this recommendation and in January, 1920, all property of the company was sold for junk.

Exhibit 9

Index Numbers of Statistics Affecting Electric Railway Operations, 1913-1923*

Year	Street Railway Fares	Elec. Ry. Operating Material Costs	Electric Railway Wages	Elec. Ry. Construction Costs
1913 average	100.0	100.0	100.0	100.0
1914 average	100.0	92.6	104.2	94.0
1915 average	100.1	93.5	106.2	97.3
1916 average	100.1	126.2	111.6	119.8
1917 average	100.5	181.9	120.6	162.7
1918 average	106.2	168.8	140.5	192.5
1919 average	120.7	172.2	174.0	205.1
1920 average	137.2	224.6	217.3	244.7
1921 average	148.9	169.9	222.7	200.7
1922 average	146.0	170.0	210.0	175.2
1923 average	142.9	168.0	212.1	200.2

* This table is taken from the article "Electric Railway Costs and Fares," by Albert S. Richey, electric railway engineer (of Worcester, Massachusetts), *Electric Railway Journal*, January 1, 1927. The index numbers for Construction Costs are those of the American Electric Railway Association; the other index numbers were compiled by Mr. Richey, and are published by him currently in his *Conspectus of Indexes*. For the years 1924-1926 they are shown on a monthly basis in the same article.

COMMENTARY: The operating and financial problems of street railways have been intensified, during the past 10 to 15 years, by the development of motor transportation, which has reduced the demand for service, and by the advance in prices and wages, which has increased the cost of operation. The situation faced by the company in the foregoing case, therefore, is typical of that faced by many electric railways, especially in small cities and in country districts: a situation which has resulted in many abandonments of operations by such companies. The general economic forces at work affecting operating costs since 1913 are summarized in the accompanying table of annual index numbers, shown as Exhibit 9. This table also includes a series of index numbers showing the upward course of street railway fares, which did not get fairly under way until 1918-1919.

January, 1927 H. B. V.

Oakdale Street Railway Company[1]

PUBLIC UTILITY—STREET RAILWAY

Street Railway Fares—*Request for Extension of Fare Zone Refused.* Residents of a district served by a street car line asked the street railway company to extend one of the fare zones on the line. The existing zone distance already was longer than the average for the entire system, and that section of the line into which the proposed zone would extend was being operated at a loss, although, when the company had added this section to its system, it had received assurance from the authorities that it would be allowed to charge fares that would make that part of the line self-supporting. Moreover, the company was planning to establish a motor bus line in an adjacent territory which had no street car service, and a reduction in fare on the existing line would make this project impracticable. The company, therefore, refused the request for extension of the fare zone.

Street Railway Fares—*Reduction of Existing Fare as Alternative to Extension of Service.* A public service commission upheld the decision of a street railway company not to reduce the fare on an unprofitable line by extending one of the fare zones, on the grounds that the existing fare was not unreasonable or unjustly discriminatory and that it was more just to permit the company to establish service in an unserved area, as the company had agreed to do if the fare were not reduced, than to reduce a reasonable fare for the benefit of persons already served below cost.

(1922)

Oakdale was a mill city, 12 miles long and 3 miles wide, with a population of about 12,000. The Oakdale Street Railway Company operated 11 lines in the city and 1 high-speed line between Oakdale and Bender, as shown in Exhibit 1.

For 25 years the company had paid 8% dividends on its capital stock and had earned a substantial surplus over operating expenses, fixed charges, maintenance, depreciation, and dividends. A summary of the company's receipts and expenditures for the years 1920 and 1921 is presented in Exhibit 2.

The company's relations with the city government and with the public were satisfactory; the city authorities had discouraged independent jitney and motor bus competition, so that the street railway company was the exclusive agent of local transportation in the territory.

[1] Fictitious name.

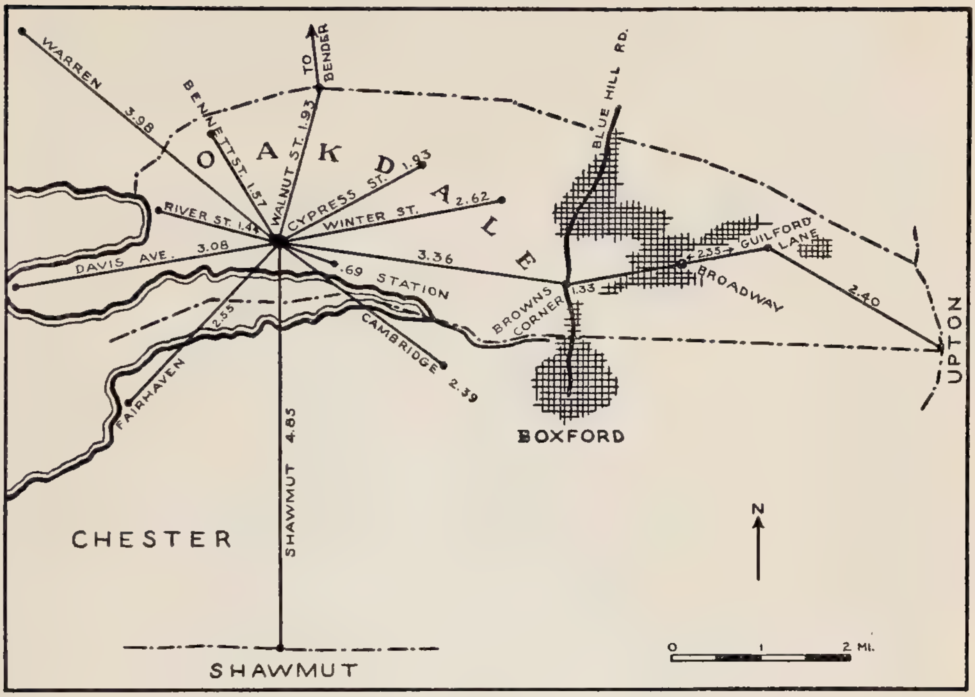

Exhibit 1: Oakdale Street Railway Company's System.

The street railway rate system was, in general, one of 5-cent fare zones radiating from the center of the city. The Browns Corner line, which extended east from the center of Oakdale 8.11 miles, was divided into three 5-cent zones: from the center of Oakdale to Browns Corner, a distance of 3.36 miles; from Browns Corner to Guilford Lane, 2.35 miles; and from Guilford Lane to the boundary line between Oakdale and Upton, 2.40 miles. Between the center of Oakdale and Browns Corner, the traffic was heavy and the company operated cars on 5-minute headways. East of Browns Corner the traffic was light and the cars ran every 45 minutes. Until 1922, the headway on this part of the line had been 90 minutes.

In the summer of 1922, residents of the district between Browns Corner and Broadway, in the zone extending from Browns Corner to Guilford Lane, with the support of the mayor and other city officials, formally requested the company to extend the 5-cent fare zone which terminated at Browns Corner east to the junction of Broadway and Jackson Avenue, a distance of 1.33 miles. The granting of this request would entail the discontinuance of the zone limit at Guilford Lane and the estab-

Exhibit 2

Summary of Receipts and Expenditures of Oakdale Street Railway Company in 1920 and 1921

Receipts 1920		Expenditures 1920	
Gross Revenue	$1,729,396	Operating Expenses and Depreciation	$1,303,587
Other Income	3,575	Interest and Taxes	141,754
		Dividends	195,000
			$1,640,341
		Surplus	92,630
Total	$1,732,971		$1,732,971

Receipts 1921		Expenditures 1921	
Gross Revenue	$1,603,334	Operating Expenses and Depreciation	$1,211,158
Other Income	2,664	Interest and Taxes	148,120
		Dividends	195,000
			$1,554,278
		Surplus	51,720
Total	$1,605,998		$1,605,998

lishment of a 5-cent fare zone from Broadway to the end of the line, a distance of 3.42 miles. The principal complaint of the residents of the district, who were for the most part mill workers, was that they had to pay two fares to reach the mills which were a mile or mile and a half west of Browns Corner.

East of Browns Corner was a fast-growing suburban community. There were 320 houses and 31 summer cottages within 1,000 feet of the trolley line in the section between Browns Corner and the end of the line. In the region between Browns Corner and the junction of Broadway there were 162 houses, which, on the basis of the city assessor's estimate, indicated a population of 583 persons.

About a mile and a half north of Browns Corner there was a suburban community which was without street car service. South of Browns Corner was the town of Boxford, also without transportation service. Blue Hill Road, a main thoroughfare which ran through Browns Corner, connected these two communities.

In the two sections there were 366 families, or a population of over 1,100, within 1,000 feet of Blue Hill Road.

In 1922 the company was contemplating the establishment of a motor bus line between Boxford and the community north of Browns Corner. This line would follow Blue Hill Road and would be divided into two 5-cent zones with the fare terminal at Browns Corner. The company did not expect the line to be profitable during the first two or three years, but the company's policy was to extend service into a new territory whenever the size of the population warranted such action. The extension of the fare zone from Browns Corner to Broadway would prohibit the installation of the proposed bus line, as the company could not in fairness collect 10 cents for a ride from the center of the city to a point a mile and a half north of Browns Corner, or to a point a mile south of Browns Corner, and at the same time permit passengers to ride from the center of the city to a point a mile and one-third east of Browns Corner for 5 cents. To extend the zone to the Broadway junction and give transfers to the busses at Browns Corner would result in little, if any, new revenue to the company.

With the exception of the interurban line which ran to Bender, the Browns Corner line was the only line in the system which comprised more than a single zone. Exhibit 3 presents the lines and the existing and proposed lengths of zones and rates per mile of the Oakdale Street Railway Company.

Until 1919 the Upton Street Railway Company[2] had owned and operated the 4¾-mile section of track between Browns Corner and the boundary line between Oakdale and Upton. That company had gone into a receivership in 1919 and had discontinued operations on the line. At conferences of residents of the vicinity, representatives of the city, and executives of the Oakdale Street Railway Company, the company had received assurance that if it added this section to its system the authorities would allow it to charges fares that would make the line self-supporting. The company accordingly had taken over the operation of the line and had established two 5-cent fare zones; the Upton Street Railway Company formerly had charged a 12-cent fare. The purchase price of the section had been $35,000. During 1919 and 1920, the Oakdale Street Railway Company had spent

[2] Fictitious name.

EXHIBIT 3

LINES AND EXISTING AND PROPOSED LENGTHS OF ZONES AND RATES PER MILE OF OAKDALE STREET RAILWAY COMPANY

Lines	Existing Zones	Length of Zones (Miles)	Rates per Mile* (Cents)
Station		.69	7.25
River Street		1.44	3.47
Bennett "		1.57	3.18
Cypress "		1.93	2.59
Walnut "		1.93	2.59
Cambridge "		2.39	2.09
Fairhaven "		2.55	1.96
Winter "		2.62	1.91
Davis Avenue		3.08	1.62
Browns Corner	First	3.36	1.49
" "	Second	2.35	2.13
" "	Third	2.40	2.08
Warren Street		3.98	1.26
Shawmut "		4.85	1.03

Average (exclusive of station line) 2.65 Weighted Average 1.89

Lines	Proposed Zones	Length of Zones	Rates per Mile
Browns Corner	First	4.69	1.07
" "	Second	3.42	1.46

*Based on the assumption that passengers rode entire distance of fare zone.

approximately $54,650 for reconstruction, making a total investment of about $89,650. During 1921, when the company had given 90-minute service on this part of the line, the revenue had been almost sufficient to meet the cost of operation, but not sufficient to earn the interest on the investment, as shown in Exhibit 4.

EXHIBIT 4

FINANCIAL RESULTS OF OAKDALE STREET RAILWAY COMPANY'S OPERATION OF LINE FROM BROWNS CORNER TO END OF LINE, 1921

Revenue	$25,153.72
Operating expenses at average per mile cost of operation for 1921, 40.35 cents, 62,362.6 miles, on 90-minute headway	25,163.31
Operating deficit	9.59
6% interest on investment	$ 5,379.00
Deficit	$ 5,388.59

The company estimated that the deficit from its operation of this section of the line would be considerably greater for the year 1922 than in 1921, because in 1922 the company was giving 45-minute service. Exhibit 5 gives estimated results of operation for the year 1922, based on receipts and costs for the eight months ending August 31, 1922.

EXHIBIT 5

ESTIMATED RESULTS OF OAKDALE STREET RAILWAY COMPANY'S OPERATION OF LINE FROM BROWNS CORNER TO END OF LINE, 1922

Probable Revenue (Estimated increase of 13.4% over 1921 revenue)	$28,524.32
Esimated operating expenses at average per mile cost of operation for 8 months ending 8/31/22, 36.70 cents, 96,165 miles on 45-minute time	35,292.56
Operating deficit	$ 6,768.24
6 % interest on investment	$ 5,379.00
Deficit	$12,147.24

From a careful analysis of the traffic in the two zones east of Browns Corner, the company estimated that this annual deficit would be increased by $9,960 under the proposed rezoning plan.

The mayor of Oakdale and the board of aldermen strongly favored the proposed zone extension. Representatives of Oakdale in the state legislature supported the proposed extension, and the company realized that, if it refused the requested extension, the matter would appear before the Public Service Commission.

The company decided, however, to refuse the extension. It believed that the extension would constitute an unfair discrimination against residents served by other lines, and, if it introduced the proposed bus line, against the communities north and south of Browns Corner. The people in the section between the Broadway junction and the Guilford Lane fare limit, moreover, would have to pay 10 cents to reach Browns Corner, instead of 5 cents. The lengthening of zone distances would cause a serious loss of revenue and would make the much needed bus service impracticable.

The case was taken to the Public Service Commission, and the company's decision was approved. The majority opinion of the commission read, in part, as follows:

The company replies that it ought not to be asked at this time to extend this fare zone in view of the history of the line beyond Browns

Corner. In August, 1919, the line of the Oakdale Street Railway Company extended east only as far as Browns Corner. The line east of that was then owned and operated by the Upton Street Railway Company. In September, 1919, this line east of Browns Corner was discontinued for lack of traffic, by the Upton Street Railway Company and, as a result, street railway transportation east of Browns Corner ceased. Conferences were held between representatives of the city, residents of the vicinity, the Oakdale Street Railway Company, and the Public Service Commission with a view to bringing this about. At these conferences the street railway officials expressed the fear that, if they took over this line and operated it as a part of their system, they would soon be asked to extend their present fare zones beyond Browns Corner. They were urged, however, to abandon this apprehension and were told that they would be allowed to charge such fares on the line east of Browns Corner, if the Oakdale Street Railway Company would take it over, as would make it self-supporting and, consequently, no drain on the revenues of the rest of their system. The Oakdale Street Railway Company accordingly took over the operation of the line east of Browns Corner thus abandoned by the Upton Street Railway Company, was granted a location between Browns Corner and the Oakdale-Upton line for this purpose, expended considerable money to put the line in proper operating condition, and established two 5-cent fare zones on the same, instead of the higher fare previously charged thereon by the Upton Street Railway Company. Figures presented by the Oakdale Street Railway Company, and not questioned so far as we are aware, show that the line east of Browns Corner is not yet self-supporting on a service-at-cost basis.

While we feel that there is force in the contention of the company that it ought not, in view of these dealings, be compelled to reduce fares on this line east of Browns Corner, before, at any rate, it becomes self-supporting upon its present basis, we prefer to deal with the matter on broader and more general lines.

We do not think that the argument of the petitioners that the Warren and Shawmut fares constitute unjust discriminations is valid. If the petitioners' request is granted and the 5-cent fare zone is extended from the center of the city to the corner of Broadway and Jackson Avenue, that zone will be 4.69 miles long, as contrasted with the existing Warren line which is 3.98 miles long. It will, in short, be longer than any line except the Shawmut, which is 4.85 miles long. . . . . It is obvious that the street railway company cannot give that ride of 4.85 miles for 5 cents without compelling the rest of the system to pay for some of it. Hence, it is probably true, as the petitioners urge, that the citizens of Oakdale, who are the main supporters of the system, are contributing something in this instance toward the fare of people residing in another municipality. There may, however, be other considerations which justify this arrangement. . . . . However that may be, the mere fact that such an anomalous fare exists on one of the many lines of the Oakdale Street Railway Company seems to us

far from a sound argument for creating still another anomalous one—particularly as the residents of Shawmut, at any rate, could complain, with some show of reason, that any increase in fare was more or less an injustice to them, while the people living east of Browns Corner have settled there on the existing basis which they are now endeavoring to break down. If the petitioners' request is granted and they secure a ride of 4.69 miles for 5 cents, what answer can be made to the users of all the other lines of the Oakdale Street Railway Company, except the Shawmut one, when they complain of the fare to Broadway as an unjust discrimination against them? It is too obvious to require extended statement that the length of fare zones on our street railways cannot be precisely equal. The question of unjust discrimination is, therefore, largely one of judgment. On all the facts and taking the Oakdale Street Railway system as a whole, we think that the complaint of unjust discrimination made by the residents of the east end of the city, beyond Browns Corner, is without basis.

We do not understand it to be urged that the present fare zone to Browns Corner is intrinsically unreasonable. If it is so urged, we do not share this view. The fare to Browns Corner is 5 cents for a distance of 3.36 miles. So far as we have been able to ascertain, no street railway company in the state operating under similar conditions carries a passenger a greater distance for a single 5-cent fare. Our belief is that a street railway passenger who gets a ride of 3.36 miles for 5 cents is getting his money's worth.

The principal argument of the petitioners is really one of the city development. It is true that this part of the city, immediately east of Browns Corner, has grown rapidly since the extension of Broadway and is being largely built upon. This, however, is also true of the areas north and south of Browns Corner adjacent to Blue Hill Road, a main north and south thoroughfare extending from Bender through Browns Corner, to and beyond the town of Boxford, the residential section of which is about a mile south of Browns Corner. These sections, both Boxford Village and the district growing around Blue Hill Road north of Browns Corner, now have no public transportation facilities whatsoever. . . . . The petitioners argue strenuously that the district east of Browns Corner is the one which will naturally develop most and that this should be encouraged by the reduction in fares urged. The company contends that the section north of Browns Corner adjacent to Blue Hill Road is also developing rapidly and that this area and the town of Boxford, neither of which have any service at all, ought to be attended to properly before those who reside east of Browns Corner get a reduction in fares. The company, in short, takes the position that if it has any surplus funds to spend, these should not be expended to render a service below cost to people who are now getting their fair money's worth, but should, instead, be spent either to give lower fares, directly or indirectly through transfers or better service to the many more car riders who are now paying 5 cents for an average ride of about half the length of that to Browns Corner, or still better, to give

service to people who at the present time have none. Accordingly the company offers, in case the fare terminal at Browns Corner is continued as at present, to proceed forthwith with the establishment of a motor bus line, running north and south from Browns Corner, on Blue Hill Road, to accommodate the village in Boxford and the growing section in the vicinity of Blue Hill Road and Broadway. The company also points out that the community east of Browns Corner has thrived and prospered under the existing fares. . . . . The petitioners maintain, however, that the test should not be so much the interests of the car riders of the Oakdale Street Railway Company in general, as the interests of those who reside in Oakdale, which makes the prosperity of the road. The Oakdale Street Railway Company takes the opposite view. We cannot say, upon the evidence, that we are satisfied that the Oakdale Street Railway Company is in error in its judgment. Indeed, we do not believe, in the last analysis, that this is a question for us to decide. As we see it, we are dealing, under the statutes, with only two questions—one, whether the fare itself is unreasonable, and the other, whether it is unjustly discriminatory—and however we may feel as to what would be the best extensions which the street railway company could make for the development of Oakdale, we are, at any rate, satisfied that the fare of 5 cents charged from the center of the city to Browns Corner, a distance of 3.36 miles, is not an unreasonable one, and that the fact that there are two other lines in Oakdale upon which one gets a longer ride for the same amount of money does not, upon all the facts, constitute an unjust discrimination.

In view of all the circumstances above set forth, we do not feel that we would be justified in ordering the company to make the extension requested.

Two of the commissioners dissented from the opinion of the majority on the following grounds:

Each case should be judged on its own merits, taking into account the character of the territory served, the financial condition of the company, mileage operated, protection from competition as afforded by local authorities, and all other conditions that obtain in a municipality and are applicable to the issues involved. Companies of this character are organized for the exercise of an important public franchise, which is obtained from the municipalities within which its lines are operated. It is a valuable privilege in the main—made especially so in Oakdale where the attitude of the city authorities has discouraged jitney or bus competition. While the company is entitled to a fair return upon its investment, it is bound to render the fullest possible service for the benefit of the public consistent with such return. And the returns of this company indicate pretty clearly that it is in a position to render the service petitioned for without undermining in any way its financial structure. These returns indicate that during the past 10 years, in spite of the troubled conditions during the war period,

there was a surplus earned over all operating expenses, fixed charges, maintenance, depreciation, and dividends. We presume that this surplus has been devoted to additions to its plant of one sort or another. The road is in excellent physical condition and, in fact, we understand that the company did not stress the financial factors in this case, except that it stated that that part of the line beyond Browns Corner was not quite paying its way. It does not seem reasonable to us, however, to figure upon a part of a line, as it might be possible to take other lines in the city and show that part of the line toward the end of it, running into sparsely settled territory, was not paying. This part of the line beyond Browns Corner, like other lines, is a part of a line running from the center of the city and there is no question but that the line as a whole is a paying proposition.

Much stress has been laid in the majority opinion upon the fact that this line beyond Browns Corner was at one time a part of the Upton Street Railway system and that at the time it was taken over the company was told that it would be allowed to charge such fares on the line east of Browns Corner that there would be no drain on the revenues of the rest of its system. The answer to that seems to be that this part of the line is now a part of the entire line from the center, and it does not seem necessary to consider past history except in the light of the present changed conditions. There is nothing sacred about Browns Corner as a transfer point if the growth of the city materially changes conditions. Furthermore, we do not know who made this promise, by what authority it was made, or to what extent it should be binding upon the present city officials or this department. As the majority set forth in their opinion, this territory beyond Browns Corner is growing very rapidly. It is the only possible territory for expansion, to any great extent, in Oakdale at the present time. The city has been laying out new streets, laying water and sewer pipes, and in other ways encouraging this growth. We think the street railway company also should encourage this growth.

The company stresses the point that if this zone were extended, it would interfere seriously with the furnishing of transportation facilities to certain residents north and south of Browns Corner, and the company has told this department that it would forthwith establish a bus line in this territory. . . . . It is obvious that in order to establish this line this department must be petitioned for (and must grant) an extension of charter privileges and the company thereafter would be obliged to secure a license from the municipal authorities of the city of Oakdale, which means substantial delay and involves favorable action by the city authorities, which are seeking changed conditions here upon a transportation system already in operation.

Relative to the question of discrimination, length of lines, difficulty of equalizing length of zones, the question is asked in the majority opinion as to what answer can be made to the riders on other lines. The simple answer to the riders on most lines is that they now ride to the end of their lines for a single fare and could hardly expect more.

While the lengths of these lines are set forth in the majority opinion, it is not indicated that the great majority of them, where the distance is short, are dead-end lines. There are only three lines which are really divided into zones. One is the high speed line to Bender, which naturally should be considered on a different basis—yet here the zone is at the city line. The second is the Shawmut line, where the zone is also at the city line, and the length of which is longer than the zone petitioned for in this case. The third is the line which is the subject of this petition and which has three zones to the city line. It is the only line within the city limits with more than a single 5-cent zone from the center to the boundary line, and there are other lines which go into other communities which charge but one fare to the end of the line.

In view of these facts we believe that the line running from the center of the city through Browns Corner should be divided into two zones and the end of the first zone should be at Broadway.

COMMENTARY: Rate making for street railways is more complicated and more difficult than one would naturally suppose. There have been many unsolved rate problems in this business from the very beginning, and this fact probably accounts for some of the difficulties confronting many street railways today.

In the first place, the goods were priced too low—an initial mistake from which the industry has never really recovered, because it has never been able to furnish out of earnings the character of service demanded by its customers, nor has it been able to promote, or take advantage of, new developments which would have made it the controlling agency for all forms of city transportation instead of limiting its service in general to the movement of cars on steel rails. It never had the surplus necessary for promoting the auto bus and taxi business which has been developed by competitors; thus a bad situation has been made worse. The lack of suitable transportation facilities that might otherwise have been provided by a centralized and comprehensive transportation agency has likewise encouraged the use of private automobiles. Transportation is essential to the welfare of a community, and by pricing this service too low, the street railways have made others rich and themselves poor. Real estate values have multiplied and other businesses have prospered as the result of a service for which the street railways have never been adequately paid, while more expensive forms of transportation have been encouraged. Fares were frozen at 5 cents so long that the industry went to pieces even before the general price level began to rise. This initial mistake might have been remedied had not everyone been led by speculators to believe that the industry was extremely profitable. It is difficult now, if not impossible, to make the general public believe otherwise.

In the second place, the preeminent importance of transportation as

a factor in community life has connected the street railway service more intimately with the public interest than has been the case in other public utility services. Because of this close connection, the general public has interposed itself as a third party between the business and its customers, thus interfering with that free play between seller and buyer which is essential to the prosperity and service of any business.

Such questions as whether a particular line in one section of the city should pay its own way or have its losses absorbed in the general rate level, and the extent to which the fare should depend upon the length of ride, have never been thoroughly discussed or generally understood. Lack of force by some street railway managers and interference by the public have prevented a generally correct solution of these questions.

In electric, gas, or telephone companies the distance factor is not an essential characteristic of the service rendered, so that the rates set by these utilities usually have been the same, under similar conditions, for all customers within the city limits or franchise area. In transportation, however, the distance factor is an essential characteristic, so that the distance traveled should be the determining factor in making rates. The steam roads and the taxi companies have recognized this principle and have made rates accordingly. The street railways, on the contrary, have reached a compromise in this situation by setting fixed fares independent of distance traveled in most cases and by having zone fares in other cases. A misguided consideration of the public interest and the practical difficulties of fare collection, however, have usually prevented the more logical method of basing fares upon length of ride and of making each line a paying proposition.

It may be true that the public interest is favored by the spreading out of population, but there is no reason why the principal transportation agency of a city should have its net income reduced and its service greatly curtailed to bring this about while all other interests reap the advantage. A single fare on a long line may, and usually does, develop the district near the end of the line, but the street railway customer who moves to the new district does not benefit, because he pays more for increases in rents, taxes, and land values than he would pay to the street railway company in higher fares. This fact is generally overlooked. Because, in such districts, the length of ride for the same fare is gradually increased and transfer privileges are abused, many street railways have been ruined by the very forces which the extension of their service has created and fostered.

Ideas which are ostensibly altruistic, but which in reality are engendered by the self-interests of other businesses, have been permitted

to interfere too much in the making of street railway rates. No one seems to feel that the car riders, like the buyers of any other commodity or service, can and should make the rates, and that if left to exercise their own judgment, they would do so. By doing so, they would advance their own interests and the interests both of the street railway and of the community at large.

In the Oakdale Street Railway case a growing factory district, which was growing by the very fact of having transportation facilities, desired a lower fare to the business center of the town. The street railway line was already being operated at a loss, and it was proposed to increase this loss. The lower fare would add materially to real estate values in the district concerned, and the business interests in the center of the town also would have benefited. In such a case, everyone would gain temporarily except the street railway. If the basic rates were not already too low, the increase in future traffic might have covered the temporary loss. As this does not seem to have been probable, the decision of the company was correct. In the long run, the new district would profit more by having an adequate system of transportation than by having a lower rate of fare and inadequate service.

October, 1925 T. H. D.

Lehigh Valley Railroad

Railroad Operation—*Substitution of Motor Truck Service for Way Freight Train.* Less-than-carload freight traffic on a railroad's branch line, 40 miles long, was so light that the operation of a way freight train which made a round trip over the branch each day was not profitable. Because it wished to give daily service in both directions, but could not do so by means of steam-operated trains without loss, the railroad decided to substitute highway motor truck service.

Trucking Service—*Basis of Payment.* A railroad which had decided to substitute highway motor truck service for rail service in handling less-than-carload freight traffic on a branch line 40 miles long, contracted for a motor truck and trailer at the rate of $36 a day rather than for trucking service on the basis either of a ton-mile rate or of a blanket rate.

(1924)

The Lehigh Valley Railroad operated a single-track branch line, 40 miles in length, from Geneva, New York, to Ithaca, New York. In 1924, in addition to five passenger trains daily in each direction, the company operated over the branch in each direction daily, except Sunday, a way freight train, hauling less-than-carload traffic, and a freight train hauling carload traffic.

In 1924, railroads throughout the country were beginning to use automobile trucks for the movement of freight on lines on which the volume of traffic was inadequate to support the operation of a freight train. The management of the Lehigh Valley Railroad was aware that the volume of less-than-carload freight traffic on the branch between Geneva and Ithaca was so light that the operation of a branch way freight train was not profitable. The company could not effect any appreciable saving by operating this train in one direction on one day and in the return direction on the next day. The branch was so short that, under ordinary conditions, it was traversed in both directions daily by the way freight train within eight hours. The company paid the train and engine crews for a minimum of eight hours, whether or not they worked that length of time. Moreover, the management wished to give daily service in both directions on the branch for freight shipped in less-than-carload lots. The management thought it impracticable to consolidate carload freight and less-

than-carload freight in one train, since to do so would slow down the service, because of the time which would be required for handling both classes of freight at the several stations on the branch.

A member of the management of the Lehigh Valley Railroad suggested that it would be advisable for the railroad to discontinue the way freight train on the branch and use motor trucks to move less-than-carload freight. He said that other railroads which used motor trucks usually made contracts with existing trucking companies to perform the required services. Several bases of payment to the trucking companies were used. In some instances, payment was made on a ton-mile basis, that is, the unit charge was for one ton of freight transported a distance of one mile. In other cases, a blanket rate, based on the weight of the freight carried, was charged for all freight trucked within a certain zone, regardless of the distance. Under both these methods of payment, the amount paid for the trucking service varied according to the volume of freight moved. In the commercial trucking field, however, it was a common practice for a company to hire a truck with driver, and helper if necessary, for a specified amount per day or per hour.

The management of the Lehigh Valley Railroad learned that it could hire a truck and trailer with driver and helper for $36 per eight-hour day. The management estimated that one large truck with a trailer would be sufficient to carry the normal daily volume of less-than-carload freight over the branch line from Geneva to Ithaca. If on any one day there was more freight than could be taken care of by one truck and trailer, the company could hire an additional truck.

The railroad estimated that the cost of operation of the way freight train on the branch was $4,816 per month. In Exhibit 1, the details of the cost of operating the train are given.

If but one truck and trailer were required during a month of 25 working days, the cost of this service for the month would be $900, $3,915 less than the cost of operating the freight train. Even if several additional trucks were required from time to time, the cost of truck operation would show a substantial saving over that of train operation.

The management was of the opinion that for this particular branch it would be more advantageous to hire a truck and trailer

EXHIBIT 1

MONTHLY COST OF OPERATION OF WAY FREIGHT TRAIN ON GENEVA-ITHACA BRANCH OF LEHIGH VALLEY RAILROAD

Items of Expense	Cost per Month
Engine crew	$ 466
Train crew	1,054
Locomotive repairs	1,652
Fuel, water, oils	1,552
Freight car supplies	42
Freight car repairs	49
Total cost (25 working days)	$4,815
Per day cost	193

at a contract price of $36 per day than to pay for the trucking service either on the basis of a ton-mile rate or of a blanket rate. If either of the latter bases were used, it was possible that some sort of a minimum guaranty would have to be made to the trucking contractor, because the volume of freight which moved by truck on the branch would be so light at times that a contractor paid on a weight basis would not be able to make a profit.

The management decided to discontinue the way freight train and to contract for a truck and trailer at the rate of $36 a day to move the less-than-carload freight on the branch. The new service was begun October 27, 1924, and within a short time the railroad noted that claims for damage to shipments were less numerous than they had been when the freight was moved by train. The company found it unnecessary to hire any additional trucks for the service and realized the estimated saving of approximately $3,900 a month.

COMMENTARY: This was one of the early instances of railroad use of motor trucks on the highways to replace rail service by steam-operated trains. Since 1924 the practice has been adopted by other railroads both as a substitute for train service and as complementary thereto.

In this case the situation was peculiarly favorable for the motor truck, both because of the extremely light volume of less-than-carload freight and the short distance which it was moved. The combined capacity of the truck and trailer is not given, but the low rate of $36 a day for the truck and trailer and two men indicates that the truck was not of the heaviest type. Studies in other cases indicate that the inclusive cost of a five-ton truck with driver is between 40 cents and 50

cents a mile. In this case the daily mileage was 80. On these typical costs per mile the cost per day was between $32 and $40, leaving little profit for the owner of the truck and trailer.

The details of train costs (Exhibit 1) show relatively high expense for locomotive and freight car repairs. The figure for the locomotive is $1,652 a month or, at 80 miles a day for 25 days, a cost of 83 cents per locomotive mile, about three times the normal cost of the light locomotive ordinarily assigned to a light way freight train. One ordinary freight car can take care of more freight than can be loaded on a moderate-size truck and trailer. The yearly repair cost of the average freight car is about $200, or about $17 a month. In Exhibit 1 the monthly cost of freight car repairs is given as $49. What is meant by freight car supplies is not clear. The monthly cost of $42 needs explanation. With the exception of wages of engine and train crews, the estimated costs appear to be unreasonably high.

The explanation of the alleged impracticability of combining the two freight trains into one is not entirely convincing. If the volume of way freight was so small as not to exceed the capacity of the truck and trailer, the additional load and the additional train time at way stations would not appear to be burdensome to the one combined train. The alleged impracticability of consolidating the two trains should be more fully explained.

January, 1927 W. J. C.

Exmoor Railroad Company[1]

Railroad Operation—*Reduction of Service to Reduce Operating Expenses on Branch Line.* Traffic on the branch line of a railroad had become so light that only one passenger train and one way freight train were operated daily each way. The annual loss on the branch, which connected 10 stations, was $75,000. Rather than obtain permission to abandon the branch, the railroad adopted a plan to reduce service and lower expenses on this line. The passenger train was withdrawn and replaced by a combination passenger and baggage car on the way freight train. The 10 full-time station agents were replaced by part-time caretakers, who kept the stations open 4 hours a day, and by a train auditor, who acted as traveling agent for each station.

(1924)

The Exmoor Railroad Company owned and operated, as a part of its system of about 400 miles of lines, a branch line 36 miles long connecting 10 stations. This line ran through a sparsely settled region which had no important industries. Before the use of automobiles, motor trucks, and coaches became general, the branch line had a fair volume of local passenger and freight traffic and carried substantial quantities of dairy products which moved over the main line of the railroad. The branch line was paralleled by a hard-surface highway which was kept clear of deep snow during the winter months. By 1923 the volume of traffic on the branch had become so light that all service except one passenger train and one way freight train daily each way had been withdrawn. Even with this minimum service and the exercise of the strictest economy in all expenditures, the gross revenues yielded by the branch in 1923 were $75,000 less than the operating costs.

Similar situations had developed on many railroads. The typical railroad had one or more branch lines which did not pay the direct expenses of operation. Ordinarily the train service was reduced, stations were closed, gasoline or electric motors were used instead of locomotives, or other similar expedients were adopted to cut down costs. In rare cases only was it possible by additional service or other means to increase the volume of traffic and thereby increase revenues. In the typical case the traffic,

[1] Fictitious name.

never large in volume, had practically dried up because of the closing down of industries, the exhaustion of timber lands, mines, or quarries, the abandonment of farms, or because of other reasons, and the little that was left moved more conveniently by motor car over the highways. In extreme cases, the railroad appealed to the Interstate Commerce Commission or the state utilities board or both for authority to abandon the branch because it was a liability instead of an asset. The commissions, however, were reluctant to grant such relief because it might leave certain small communities without railroad service, particularly in winter months when the highways might not be passable for motor cars or trucks. It had been established firmly as a principle that a carrier might have to assume the burden of unremunerative lines as an incident to its operation as a whole, and that to hold its charter the carrier must furnish reasonable service on all its chartered lines even though a few of them were a financial burden on the remainder of the system.

The Exmoor Railroad Company never had petitioned the state commission of public utilities for permission to discontinue the 36-mile branch line. Because of strong local pressure, the company also had refrained from taking off the one remaining passenger train and forcing the few passengers to ride in a combination passenger and baggage car on the freight train. The 1923 deficit from the operation of the branch was a serious burden on the system, which as a whole was earning little more than its total fixed charges.

Early in 1924, several of the railroads with which the Exmoor Railroad Company's lines made connections secured authority to abandon a few unimportant and unremunerative branches.

The Exmoor Railroad Company thereupon made a careful survey of the operations of its branch line, gathering statistics of the trend of population in the territory served, the number of passengers and tons carried by the line, the revenues and expenses, and the extent of auxiliary services. The company found that there was little likelihood that traffic would increase. In fact, the growing use of through passenger coaches and motor trucks indicated that the little traffic that was left for the railroad soon would be taken away. The executives of the company believed it would be impolitic to propose the abandonment of the branch, but after discussing the situation with persons of influ-

ence in the territory and placing all of the facts before them, the executives determined to adopt an alternative plan under which the service on the branch would be reduced but not completely withdrawn.

In 1923 the company had employed an agent at each of the 10 stations on the branch line. The work was exceedingly light and the agent had much free time. His wages were fixed by a schedule prescribed by the United States Railroad Labor Board. The wages specified in this schedule were based upon the number of hours which the agent was on duty and gave little recognition to the amount of work required. With one passenger train and one freight train per day on the branch, each agent was required to be on duty more than 8 hours, although during many hours there were practically no duties to perform. It was not possible for the company to avoid this overtime by spacing the trains so that the hours on duty could be split into two or more periods. The rules of the United States Railroad Labor Board required the railroad to employ an agent on a full-time basis if the aggregate daily hours on duty were 5 or more, and made it impossible for the company to combine the duties of classified employees, as, for example, to have the section foreman act also as agent.

The plan which the company adopted provided for the withdrawal of the passenger train and for the carrying of a combination passenger and baggage car on the way freight train. The schedule of this train was so arranged that it was possible to close the stations except during four hours each day. This reduction in the hours of service enabled the railroad, under the rules of the United States Railroad Labor Board, to employ men on a part-time basis to serve as agents or caretakers. The company made arrangements at each station to have a storekeeper or other local resident act as caretaker. The caretakers kept the station buildings open during the prescribed hours, received outbound freight, delivered inbound freight, and in other ways represented the company. These men did not sell tickets, check baggage, or issue bills of lading.

Tickets were sold and all the "paper work" was done by a train auditor who traveled with the train in each direction and attended to station duties while the train crew was loading or unloading freight. He was virtually a traveling agent for the 10 stations. He was required to make out but one report and

balance sheet for the branch as a whole. The caretaker at each station acted as his resident assistant in collecting money for freight charges. Money so collected was remitted to the treasurer by the train auditor. The train auditor was furnished with blank waybills numbered consecutively. These he was required to account for as though they were tickets.

Under this plan, the company was able to employ competent caretakers for from $25 to $30 a month. The agents formerly employed had been paid from $125 to $135 a month. Besides, there were savings in station supplies and expenses, as well as the larger saving resulting from the discontinuance of the passenger train.

The records for the first eight months of 1924 indicated that the branch would show a deficit of $35,000 in 1924 as compared with the $75,000 deficit of 1923. The railroad thus was saving $40,000 a year. When the plan was introduced, some of the residents of the territory served by the branch line had protested against the withdrawal of the passenger train. These people soon had ceased to protest, however, being convinced by the complete and frank explanation of the railroad management that the company could not stand the former loss and had adopted this plan as an alternative to petitioning for authority to abandon the branch entirely.

Commentary: The ingenious arrangement for solving one troublesome case of an unremunerative branch line is not adapted for general adoption. In this case the number of stations was not beyond the capacity of one traveling agent, yet was enough to yield savings sufficient to justify the adoption of the plan. Ordinarily no such ideal combination exists, but the case is of interest in suggesting modifications for other like situations.

Such branch lines are a serious burden upon the earning power of the typical railroad, and every expedient short of abandonment should be studied. This case should be considered in connection with others where steam service by rail has been displaced by rail gasoline motor cars or where the railroad company has taken care of the service by operating its own motor coaches and trucks on the highway.

The case also calls attention to the burdensome and inelastic rules of the United States Railroad Labor Board. These rules required the payment of unreasonably high wages to the station agents. The railroad company would have had no difficulty in securing the services of

men who would have been glad to act as station agents at reasonable wages, with the privilege of doing other work between train times, but the railroad company had no escape from the payment of monthly rates of $125 to $135. The rules were nationally standardized, and the labor unions were on guard against exceptions.

Since the case was written, the United States Railroad Labor Board has been abolished and supplanted by the mediation and arbitration provisions of the Watson-Parker Act of 1926. Under existing conditions it is possible for the railroad company to make special agreements with its station employees to cover cases of this kind.

January, 1927 W. J. C.

Durward Railroad[1]

Employee Grievances—*Providing Method of Adjustment.* A railroad, which for many years had had an agreement with the Federated Shop Crafts covering working conditions and rates of pay, had settled disputes with its employees by conferring with paid representatives of the union. As a result of a general strike in 1922, the railroad recruited 4,437 new employees. At the suggestion of the Railroad Labor Board, the railroad established an employees' association in order to provide a means for the presentation and adjustment of these employees' grievances. After two years of the association, the management of the railroad was uncertain whether to continue the association, whether to allow the Federated Shop Crafts to organize the employees as a part of the national union, or whether to set up a form of employee representation in which the management would be the guiding force.

(1924)

For many years prior to 1922, the Durward Railroad had had an agreement with the Federated Shop Crafts covering working conditions and rates of pay of its employees who were members of the union. Previous to March 1, 1920, disputes arising between workers and the management had been settled by paid representatives of the union in conference with officials of the railroad. At that time, however, Congress passed the Transportation Act, which set up, among other things, the Railroad Labor Board. That board had power to receive for hearing and to decide any dispute involving grievances, rules, working conditions, or wages and salaries of employees or subordinate officials of any railroad engaged in interstate commerce in the United States. Disputes might be heard upon application of the chief executive of any carrier, upon application of an organization of employees or subordinate officials whose members were directly interested in the dispute, upon a written petition signed by 100 unorganized employees or subordinate officials, or upon the Railroad Labor Board's own motion, if it was of the opinion that the dispute was likely to interrupt commerce. The Railroad Labor Board had no power, however, to enforce its decisions.

In 1922, two unfavorable developments took place in the relations between the railroad managements of all roads in the coun-

[1] Fictitious name.

try and the workers in the mechanical and maintenance departments. The first was a decision of the Railroad Labor Board which decreased wages of these departments 10% and abolished the plan of paying for Sunday work at the rate of time and one-half. The second resulted from the action taken by two railroads in turning their entire shop crews over to an independent contractor and contracting with him for all maintenance work. This action raised a question of employees' seniority as workers for the contractor and of their right to receive pensions when old age forced them to cease work.

As a result of these developments, there was a great deal of discussion in the press, and the national officers of the Federated Shop Crafts issued a statement to the effect that there would be a general strike at 10 a.m. on July 1, 1922. The management of the Durward Railroad received no communication, however, direct or indirect, from the committee of its employees which represented the national federation. On the morning of June 30, 1922, the officers of the railroad sent for the committee and were informed that the employees would leave on July 1 unless they received orders to the contrary from their national officers. The management representatives were told that the railroad could not prevent cessation of work and that the matter was in the hands of the national officers to be settled only upon a national basis. The railroad's relations with its employees and with the employees' representatives were friendly; no grievances of any kind existed between the men and the management. It had been the policy of the management to live up scrupulously to schedules made with organized labor in regard to pay and working conditions.

After its interview with the employees' committee, the management of the Durward Railroad held a conference of all responsible officers of the railroad to discuss the situation and to prepare for the strike. It was decided, in case the strike was called, to build up a new permanent force by direct employment of skilled mechanics. The number of skilled metal trades workers in the district covered by the railroad was large. Production had been restricted for a considerable period and there were many skilled men out of employment. Since the wages, the working conditions, and the permanence of employment to be offered by the Durward Railroad were thought to be attractive, the man-

agement believed that it would not be difficult to recruit a new force of men, even though they would not be familiar with the details of railroad work. The management recognized that, in order to procure the proper type of men, it was necessary to promise permanent employment, with the qualification that the service of the men hired must be satisfactory.

The Durward Railroad telegraphed the Railroad Labor Board of its intention. Advertisements were inserted in all the leading newspapers of the district, setting forth the conditions of employment, which included not only the rate of wages as adjusted by the Railroad Labor Board, but also the promise of permanent positions and protection from strikers. It was estimated that two years would be required to train the new men thoroughly in their duties, but that they would be reasonably proficient within six months. During the early period of training, moreover, repairs to locomotive parts could be made in vacant shop space in outside industries.

At 10 a.m. on July 1, 1922, the strike was called. In the motive power, car, and maintenance of way departments of the Durward Railroad there were at the time approximately 6,000 men, 90% of whom struck. By July 27 the railroad had recruited 3,780 men, and by August 10, 4,437 men. The applicants were for the most part of a high degree of intelligence; many were experienced workmen who had left other positions to obtain more constant employment and higher rates than were being received in other industries. Because work in the railroad shops was unlike that in other industries, it was necessary to train every man who was employed. That training was only a matter of time, for the railroad discovered that the large majority of the men were willing to learn the special features of the work that was required of them.

On July 3, 1922, the Railroad Labor Board passed a resolution dealing with conditions arising from the strike of the Federated Shop Crafts, the third, fourth, and last paragraphs of which are quoted:

Whereas in the future submission of disputes involving rules, wages, and grievances of said classes of employees of the carriers, it will be desirable, if not a practical necessity, for the employees of each class on each carrier to form some sort of association or organization to function in the representation of said employees before the Railroad

Labor Board, in order that the effectiveness of the Transportation Act may be maintained.

Now therefore be it resolved that it be communicated to the carriers and the employees remaining in the service and the new employees succeeding those who have left the service to take such steps as soon as practicable to perfect on each carrier such organization as may be deemed necessary for the purpose above mentioned.

Be it further resolved that, if it be assumed that the employees who leave the service of the carrier because of the dissatisfaction with any decisions of the Labor Board are within their rights in so doing, it must likewise be considered that the men who remain in the service and those who enter it anew are within their rights in accepting such employment, that they are not strike breakers, seeking to impress the arbitrary will of an employer upon employees, that they have a moral as well as a legal right to engage in such service of the American public to avoid interruption of indispensable railway transportation, and that they are entitled to the protection of every department and branch of the government, State and National.

On August 1, 1922, the President of the United States proposed to the railroads throughout the country that all employees on strike be restored to their former positions with seniority and other rights unimpaired. The Durward Railroad, in the light of its promise of permanent employment and of protection while the strike lasted, could not concur with the President's proclamation. It did, however, follow the suggestion of the Railroad Labor Board in regard to forming an association of its employees. In a letter sent to the mechanics, helpers, and apprentices in the motive power, car, and maintenance of way departments, the Durward Railroad proposed the formation of an association, the purpose of which was to provide an adequate and prompt means for the presentation, consideration, and adjustment of any grievance affecting in any way the working conditions, rates of pay, or other related matters of mutual interest to the management and the employees. If a majority of the men voted in favor of forming such an association, they were to select representatives to confer with the management as to the best means of carrying out the proposals of the Railroad Labor Board. The vote when taken was almost unanimous in favor of the association. The delegates were chosen, and a conference between those delegates and representatives of the management was held in which a constitution for the proposed association was drawn up.

The association so formed was similar to the former craft

union to the extent that it had a definite organization, a constitution, and certain declared purposes. It was independent of the railroad in that it directed its own policies and measures. It was founded more on the basis of cooperation than of compulsion. At the start, it lacked some of the features of the national organization. It had no paid officials to represent it in disputes to be taken before the management; it did not advocate a closed shop; and it was not financially able to set up a strike fund to tide the workers over periods when disputes were being settled.

Up to December, 1924, the railroad considered as an open question the advisability of maintaining the association as a means of hearing employees' grievances. If it appeared that the association was not carrying out effectively the purposes for which it had been organized, there were two possibilities which might be considered. The management might either allow representatives of the Federated Shop Crafts to organize the men into a union which would be an integral part of the national organization, or it might set up some form of employee representation under which it would be the guiding force in the settling of all disputes.

The Federated Shop Crafts had had long experience in furthering the aims of all mechanical workers on the railroads. Paid officials who were not employees of any carrier carried on the negotiations with the management officials. The national organization had large reserve funds on hand with which to aid workers who went on strike. The fundamental principle upon which the organization worked was that the interests of its members rested in the last analysis upon the power of compulsion.

Employee representation, on the other hand, made no provision for outside affiliation. No organization of the employees was necessary, and no strike or benefit funds and no paid officials were needed. Machinery providing for the election of representatives of the workers and a systematic method of handling grievances were the only factors in its formation. The operation of such a method would be financed by the railroad, and the benefits accruing under the plan would depend upon the management's good faith and the confidence of employees in the management.

COMMENTARY: Subsequent to the postwar inflation, there was a

general adjustment of wage scales, accomplished with varying degrees of difficulty. The bargaining machinery of labor apparently was strong, as a result of a high degree of unionization. The economic power of these unions was weak, however;[2] curtailment of operations was forcing great numbers of men out of work. Failure to accept reduced wages commonly resulted in dismissal. In this state of affairs, company unions and shop committees received a stimulus. There was an employers' market for labor.

The experience of the Durward Railroad during the period subsequent to the postwar inflation was typical of that of other companies. Wages were reduced; the Federated Shop Crafts Union protested; a strike followed; other workers were secured in a short time, and operations were continued as before, except that affiliation with the Federated Shop Crafts was ended, and a company union was substituted.

The settlement of difficulties between employers and employees is seldom entirely satisfactory to both parties; either one or the other wins a complete victory, or a compromise is effected. The status secured by the Durward Railroad with a company union seems to have been the best compromise practicable under the circumstances. From the point of view of the company, the advantages of having its employees organized (and there are many advantages) were secured; at the same time, the company union obviated the disadvantage of having company employees connected with a federal system, which tends to confuse the interests of individual groups of labor with the interests of a fictitious, typical laborer representing the whole of labor. From the point of view of the employees of the Durward Railroad, the company union maintained their self respect. It could undertake in an adequate way any welfare functions desired; and, depending upon the quality of its organization, it could represent its members to the management, presenting the particular cases affecting them without drawing in the affairs of non-homogeneous groups.

In times of an employers' market for labor and during periods of normal demand for labor, the plan of employee organization adopted by the Durward Railroad promises to be successful. In times of protracted labor scarcity, however, a reversion of labor to trade unions and strong federalization may be expected.

October, 1927 H. N. G.

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[2] The postwar building boom was not interrupted seriously by the deflation of 1920-1921. The result was a continued demand for building-trades labor, and a consequent retention of an advantageous economic bargaining position by it. As a result, building-trade wages practically remained unchanged, while other wages suffered general reductions.

Walworth Manufacturing Company

MANUFACTURER—PIPE FITTINGS AND TOOLS

Factory Location—*Selection of Site.* A company manufacturing pipe fittings and tools, located in Boston, needed additional plant capacity to supply an enlarged market. The choice of a location was between Chicago, Keokuk, and Birmingham. After considering costs of construction, of power, and of machinery and equipment, availability and cost delivered of raw materials, climatic conditions, attractiveness of surroundings, transportation facilities, distance from factory to distributing warehouses, and, in connection with labor, supply, wages, and housing facilities, the company decided to locate its new plant in Birmingham.

(1916)

From 1843 to 1913 the Walworth Manufacturing Company, of Boston, had confined its sales efforts to New England and the export trade. In 1913 a new president was appointed who made plans for the reorganization of the production, accounting, and sales departments. It was his aim to develop a nation-wide market for the company's products, which included valves, wrenches, and pipe fittings, by taking advantage of the company's high reputation and goodwill in the trade. A competing company which, in 1890, had been the third largest company in the industry had developed a sales volume which was larger than that of any other company in the industry, including the Walworth Manufacturing Company. One reason to which the president of the Walworth Manufacturing Company attributed this growth was the change made by the competing company from the prevalent method of distribution through wholesalers to direct sale through branch warehouses located in distributing centers. The president favored the adoption of a similar policy of distribution by the Walworth Manufacturing Company and planned to establish gradually about eight branch warehouses in the Middle West and on the Pacific Coast. By 1916, additional plant capacity was required to supply the enlarged market, and it was necessary to select a location for a plant to produce pipe fittings. The choice was between Chicago, Illinois; Keokuk, Iowa; and Birmingham, Alabama.

The new plant would require about 10 acres of land, with 500,000 square feet of floor space. Approximately 1,600 workers

would be employed. The planned production, which was to consist of 1,000 tons of cast-iron products and 750 tons of malleable iron products per month, was twice the capacity production of cast-iron products in the existing plant and three times its capacity for producing malleable iron products.

The cost of the land in Chicago was $500,000, and in Birmingham $100,000. The city of Keokuk offered to donate a factory site for the proposed plant. Construction costs were estimated at $1,000,000 if the plant was erected in Chicago or Keokuk; construction costs for a factory at Birmingham were estimated at $800,000. In Chicago it would be necessary to erect a power plant, at an estimated cost of $100,000, but in Keokuk and Birmingham electric power could be purchased at a lower cost than would be incurred by the company in the production of its own power. The annual power costs were estimated at $35,000 in Chicago and Birmingham, and at $15,000 in Keokuk. The cost of machinery and equipment was approximately equal in the three cities, except that the cheaper labor costs in Birmingham might render the installation of labor-saving equipment uneconomical, with a resultant reduction in machinery costs in Birmingham. Depreciation charges on machinery and equipment were expected to be about 10% a year.

The manufacturing costs of pipe fittings were distributed as follows: material costs 25%, direct and indirect labor 45%, miscellaneous expense 15%, superintendence and overhead 15%. Monthly requirements for the principal raw materials to be used in the new plant were as shown in Exhibit 1.

EXHIBIT 1

MONTHLY RAW MATERIAL REQUIREMENTS OF PROPOSED PIPE FITTINGS PLANT OF WALWORTH MANUFACTURING COMPANY

(In gross tons)

Southern pig iron	750
Cast and scrap iron	250
Malleable pig iron	600
Malleable scrap iron	150
Coal and coke	1,500

Scrap iron and malleable scrap iron could be purchased locally at each of the sites. Southern pig iron would be purchased in Birmingham. The freight rate for southern pig iron in carload lots from Birmingham to Chicago and to Keokuk was $5 a gross

ton. The price of southern pig iron was about $17 a ton. Malleable pig iron was purchased in Erie, Pennsylvania; the freight rate in carload lots to Chicago was $3.10 a gross ton, to Keokuk $3.44 a gross ton, and to Birmingham $5.69 a gross ton. The same relative differentials in freight rates existed from producing centers of malleable pig iron in Ohio. An ample supply of coke could be secured in Birmingham without expense for freight, except a switching charge of $5 a car of 40 net tons. In Chicago or Keokuk, coke could be obtained from southern Illinois at a freight charge of $2 a net ton.

An ample supply of labor was available in both Birmingham and Chicago, and in Keokuk an adequate labor force could be recruited from near-by cities, such as Rock Island, Moline, and Davenport. Approximately 200 skilled workers, 800 semiskilled workers, and 600 unskilled workers would be necessary. In Chicago and Keokuk the wages for skilled employees were 75 cents an hour, for semiskilled employees 60 cents an hour, and for unskilled employees 40 cents an hour. In Birmingham the hourly rates of wages were 75 cents for skilled workers, 45 cents for semiskilled workers, and 30 cents for unskilled workers. Employees would work 48 hours a week for 50 weeks in the year. The semiskilled and unskilled labor obtainable in Birmingham was colored, and the skilled labor was white. The labor in Birmingham was regarded as equal in efficiency to that in Chicago and Keokuk. In Chicago labor was more highly organized than in Keokuk or Birmingham. Housing facilities in Birmingham were more favorable because houses could be constructed at less

EXHIBIT 2

ESTIMATED DISTRIBUTION OF SALES OF PROPOSED PIPE FITTINGS PLANT AMONG BRANCH WAREHOUSES OF WALWORTH MANUFACTURING COMPANY

Branch Warehouses	Estimated Percentage of Sales of New Pipe Fittings Plant
Dallas, Texas	15%
Denver, Colorado	5
Chicago, Illinois	20
Kansas City, Kansas	10
Los Angeles, California	20
Pittsburgh, Pennsylvania	10
Seattle, Washington	5
St. Louis, Missouri	15

expense than in the North. In Keokuk the Board of Trade would construct adequate housing facilities for imported labor. Other labor factors taken into consideration were the cost of living, recreational facilities, and the nationality of the labor available.

The branches to be supplied by the new factory and the estimated proportion of the total output to be sold by each branch were as shown in Exhibit 2.

All shipments were to be made to the branches in carload lots. The freight rates per 100 pounds for iron pipe fittings from the 3 cities considered to each of the branches were as shown in Exhibit 3.

EXHIBIT 3

FREIGHT RATES FOR IRON PIPE FITTINGS SHIPPED IN CARLOAD LOTS FROM PROPOSED SITES TO BRANCH WAREHOUSES OF WALWORTH MANUFACTURING COMPANY

	Per Hundred Pounds
From Chicago to:	
St. Louis	$0.23
Kansas City	0.34
Denver	0.72
Pittsburgh	0.27
Chicago	0.00
Seattle	1.125
Los Angeles	1.125
Dallas	0.56
From Birmingham to:	
St. Louis	$0.475
Kansas City	0.565
Denver	0.95
Pittsburgh	0.565
Chicago	0.50
Seattle	1.19
Los Angeles	1.19
Dallas	0.525
From Keokuk to:	
St. Louis	$0.17
Kansas City	0.325
Denver	0.69
Pittsburgh	0.465
Chicago	0.22
Seattle	1.065
Los Angeles	1.565
Dallas	0.56

Freight expense for the finished products averaged about 5% of the company's selling price. Since the market was highly competitive, an excessive expense for freight reduced the company's margin of profit.

Other factors considered by the president of the Walworth Manufacturing Company were the attractiveness of the surroundings for the plant executives and the climatic conditions of the three cities. The distance from the factory to the branches was taken into consideration. The transportation facilities available in each of the three cities also were considered. In connection with similar plants in allied industries, the president observed that the majority of establishments in Birmingham produced crude iron products without machining operations and that there were few large industrial companies in Keokuk.

As a result of the study of the various factors, the company decided to locate a plant in the Birmingham district.

COMMENTARY: The major problem of policy was decided when the Walworth Manufacturing Company undertook to develop a national market, using a series of branch houses throughout the country for distribution purposes and supplying this market from strategically located manufacturing units. From that point on, the problems concerned the rate at which the program determined by this policy was to be carried out, and the making of surveys to determine where to locate the several units.

The Walworth Manufacturing Company decided to locate a plant in the Birmingham district as a result of the study of this problem. This decision appears to have been justified for two primary reasons: the capital investment would be smaller and the operating costs would be lower in the Birmingham area than in Chicago or Keokuk. The outlay required for Birmingham was $900,000, for Keokuk, $1,000,000, and for Chicago, $1,600,000. By itself this differential has little significance, as operating cost differentials during the life of the plant might reverse the relative situations. The majority of factors having to do with operating costs also favored Birmingham, however, so the decision was supported upon both bases. Raw materials and labor, the principal cost items, were lower in the Birmingham area than in Chicago or Keokuk. The factor of cost of power did not disfavor Birmingham. The character of labor available in the South was suitable, and it was less inclined to cause trouble than was northern labor. The unfavorable freight situation was not of sufficient weight to balance the favorable features of low production costs.

October, 1927 H. N. G.

Walworth Manufacturing Company

MANUFACTURER—PIPE FITTINGS AND TOOLS

Factory Location—*Selection of Site.* A company manufacturing pipe fittings and tools in its two plants, located in Boston and in Kewanee, Illinois, had decided that competition from plants in the Birmingham, Alabama, territory made it necessary for the company to secure a site for a plant in that territory. The company thereupon considered the question of whether to locate in Birmingham itself or in the Chattanooga, Tennessee, or Gadsden, Alabama, areas. In each of these territories power costs and service were satisfactory, raw material costs were practically the same, transportation facilities were adequate, and the labor supply was sufficient. Because the Gadsden district was free from labor union troubles often found in larger cities, the company decided to locate in that district.

Expansion—*Purchase of Plant as Alternative to Construction of New One.* An eastern company manufacturing pipe fittings and tools in its two plants, located in Boston and in Kewanee, Illinois, wished, because of competition from southern plants, to secure a site for a plant in the Birmingham, Alabama, territory. After deciding that the area about Gadsden, Alabama, was the most satisfactory site available for a plant, the company debated whether to erect a new plant in Gadsden or to buy the plant of a going concern in a similar line of business in Attala, a town in the same district. The company decided to buy the Attala plant, which with needed changes in construction would cost less than to build a new plant.

(1925)

The original plant of the Walworth Manufacturing Company was located at Boston, Massachusetts. The company manufactured cast-iron and malleable iron pipe, pipe fittings, tools, valves, and similar products. Although the market for the tools manufactured by the company was practically world-wide, the principal market for the other products was in the northeastern and middle Atlantic states. The nature of the pipe and pipe fittings trade required that manufacturers carry an extensive stock and be in a position to render special service to customers, particularly, prompt delivery of rush orders. With respect to this trade, therefore, the market which the Walworth Manufacturing Company served from its Boston plant necessarily was limited to the area over which the company could meet or better the deliveries made by competitors.

In 1916, the executives of the company, wishing to expand the company's activities, had made a study to determine the best place in which to locate another plant for the manufacture of pipe and pipe fittings. As a result of this study, the company had decided to locate a plant in Birmingham, Alabama. Before carrying out this decision, however, the company had the opportunity to purchase a plant at Kewanee, Illinois, which was suitable for the company's purposes. Although for the iron products the costs of labor, iron, and freight to some parts of the market to be covered were higher in this section than in some others, since this plant could be secured at a price which was clearly advantageous to the company, the purchase was made. In the manufacture of brass products, it was desirable to be near some large industrial center in order to obtain the proper raw materials. Kewanee fulfilled this requirement. Freight rates frequently amounted to from 10% to 15% of the sales value on the iron fittings and bulky products, to from 3% to 5% on the brass fittings, and to 2% on the tools. For this reason it was impossible for the Boston plant to compete on the iron products with inland producers in their territory. The new plant was to serve all the inland territory and the Pacific Coast, while the Boston plant would continue to supply the Atlantic Coast.

In 1925, however, plants located in and near Birmingham, Alabama, provided such strong competition on a price basis that, in order to take advantage of low production costs, the Walworth Manufacturing Company was forced to purchase or construct a plant in that territory. By operating a plant in Birmingham, the company would be in a position to render service equal to that of any other company at no higher cost than that of competitors, and to serve adequately the markets of the Texas oil fields and of Cuba. Although competition was becoming increasingly keen, time was not an essential element in the problem. Likewise no great difficulty was anticipated in financing any project which might be undertaken.

Accordingly, the Walworth Manufacturing Company undertook a study to determine the most favorable town or city in which to locate a plant in the Birmingham district. Among several places considered were the following: Chattanooga, Tennessee; and Birmingham and Gadsden, Alabama. A brief outline

of pertinent factors about each of the three cities was presented to the president of the company.

Chattanooga was served by six railroads and was located on the Tennessee River, which was used for barge transportation. It was expected that the river would be navigable for standard barges when the Muscle Shoal hydroelectric development was completed about 1925. A belt railway operated by the Southern Railroad connected all entering roads and all industrial sections. Switching charges were low, and the minimum weight on which a carload rate could be obtained was 10,000 pounds a car. In other parts of the country the minimum weight was as high as 24,000 pounds a car.

Industry in Chattanooga was widely diversified; no one industry or establishment dominated the district. There were 10 banks having a total capital and surplus of $3,500,000. Two banks each accounted for $1,000,000 of this total. A comprehensive, well-managed street railway system furnished adequate service, not only in Chattanooga but between outlying towns. A hydroelectric development on the Tennessee River furnished excellent power service at low rates. With one exception, all foundries melted Birmingham pig iron. Scrap iron could be obtained locally in quantity, but no foundry used it, since pig iron was considered cheaper. Coke produced in a local by-product plant was not of high quality because it carried a high percentage of ash. Foundries used Birmingham coke. Local molding sand was believed to be satisfactory, and core sand was brought from Kentucky. Coal was produced locally and usually sold below Bir-

Exhibit 1

Minimum and Maximum Wages of Foundry Workers in Chattanooga

Classification	Wage per Hour	
	Minimum	Maximum
General laborers (negro)	$0.20	$0.25
Core makers and helpers	.40	.45
Pourers	.25	.30
Grinders	.25	.30
Inspectors	.30	.32
Cupola workers	.20	.25
Molders (white)	.45	.55
Molders (negro)	.40	.45

mingham prices. Local coal was quoted at $2.60 a ton delivered as against $3.50, the price of Birmingham coal.

The labor supply in Chattanooga was almost entirely American born; about 60% was white and 40% negro. The total population was approximately 85,000. Hours of work ranged from 48 to 60 a week, with a prevailing average of 54 hours. There were 2 small union foundries out of a total of 28. Labor rates were set on a task basis; the task work was defined and when it was finished the worker went home. At this time, labor rates in foundries, based on a 60-hour week, were approximately as shown in Exhibit 1.

There were four available sites for a plant in Chattanooga:

1. Acreage adjacent to the Belt Line in Moccasin Bend for maximum of $1,000 an acre;

2. Acreage south of the city for maximum of $1,000 an acre;

3. Property just outside the city limits on Ship Avenue, available at $1,500 an acre;

4. Property of the Southern Machine Company on E. 23rd Street, containing about 16 acres which could be bought from 3 owners at approximately $67,000.

In the first two locations a housing development, which would be taken care of by realty operators, would be necessary. No offer of a free site was made.

Birmingham was served by 10 railroads. The complete network of interconnection of railroads and industries was effected through the Birmingham Belt Railway operated by the Frisco lines. The Warrior River, about 25 miles west of Birmingham, furnished water transportation by barge line to Mobile and New Orleans. It was expected that the Intercoastal Canal would be completed within five years; it would provide barge service to Port Arthur, Galveston, and Houston, Texas. Freight rates via barge were 20% below all rail rates.

There was small diversification of industry in Birmingham. The industrial situation was completely dominated by operations of the Tennessee Coal, Iron & Railway Company, the Republic Iron & Steel Company, the Woodward Iron Company, and the Sloss Sheffield Steel & Iron Company. There were 11 banking institutions, with a total capital and surplus of $8,300,000. Three banks were capitalized at $1,000,000 or over and accounted for $6,800,000 of the total. All parts of Greater Birmingham were

served efficiently by a trolley system. Electric power was furnished from a hydroelectric plant; rates were low and the service was uniformly good. Pig iron was produced locally in large quantities from local ore, local coke, and local limestone. Birmingham ore was of low grade, as was also the coal produced locally; many mines were operated with convict labor. Coke of high quality was produced locally by several large plants. Molding sand was found within 50 miles of Birmingham.

The population of Greater Birmingham was about 200,000. The city was 57% native white and 39% negro. It had a small percentage of foreign-born labor, principally Italian, which was not regarded as efficient and was classed below the negro socially. The 54-hour week predominated in the foundries of this district. Wages in Birmingham ran approximately as follows:

EXHIBIT 2

MINIMUM AND MAXIMUM WAGES OF FOUNDRY WORKERS IN BIRMINGHAM

Classification	Wage per Hour	
	Minimum	Maximum
General laborers (negro)	$0.27	$0.32
Core makers (negro)	.45	.50
Pourers (negro)	.30	.35
Grinders (negro)	.30	.35
Inspectors (white)	.35	.40
Cupola workers (negro)	.25	.30
Molders (white)	.50	.60
Molders (negro)	.45	.55

About 1920, a strike of foundry workers led by the molders had occurred. The strike had resulted in an almost complete walkout, continuing for several weeks. In 1925, however, all shops were operated as open shops.

There were four available sites for a plant in Birmingham:

1. 12¾ acres at $1,750 per acre
2. 10 acres at $1,500 per acre
3. 10 acres at $1,500 per acre
4. 24 acres at $1,000 per acre

Gadsden, Alabama, was served by five railroads. Although its industry was considerably diversified, it was said to produce more cast-iron soil pipe and fittings than any other city in the United

States. The four banks of the city had a total capital and surplus of $680,000. Two banks accounted for $500,000 of the total. A trolley system connected the business and residential sections of the city and also the neighboring cities of Alabama City and Attala. Electric power was furnished from hydroelectric developments, at low rates and with excellent service. In general, all foundries melted Birmingham pig iron. The Alabama Company operated two blast furnaces at Gadsden but sold the iron locally on the Birmingham price base. Scrap iron could be obtained locally but was not worth using in place of pig iron. All foundries used Birmingham coke. All varieties of sand were to be found locally, as was also coke.

The labor supply was almost entirely American born, only 2% being foreign born; 32% was negro. The population was approximately 15,000. Gadsden was joined by Alabama City, having a population of 6,000, and by Attala, with a population of 3,500, making a total for the district of approximately 25,000. Sixty hours was the standard week in all industries. Gadsden as a whole was in favor of an open shop and discouraged any prospective industry that did not so operate. Labor rates were below those of any other place visited. White molders earned $25 to $30 a week for 60 hours, and negro laborers $2 a day for 10 hours. Acreage was available on all sides of the city and also within the city itself. It was the policy of the city to offer free sites to any desirable industry. Consequently, no investigation of property values was made.

In addition to this survey of possible plant locations, the president of the Walworth Manufacturing Company had made a rough estimate that it would cost from $500,000 to $750,000 to build a plant in any one of the possible locations. Of the cities mentioned, Gadsden appeared to be the most desirable. Gadsden was contiguous to excellent sources of raw material and was free from such potential trouble as labor union conflicts, often found in larger and growing communities.

At this time, however, the president learned of the possibility of purchasing the plant and business of the National Pipe & Foundry Company, of Attala. This company had been organized by two men in 1915, primarily to compete with the dominant Birmingham companies and with other manufacturers in the southern and southwestern markets, especially in the oil fields of

the Southwest. The company had selected patterns which would give the greatest production tonnage—large sizes—and which were in demand in the oil fields especially. It was producing approximately 1,300 tons of cast-iron screws, flanged pipe fittings, soil pipe, and soil pipe fittings per month. The Walworth Manufacturing Company did not manufacture soil pipe and soil pipe fittings, but purchased these products from other manufacturers for resale. From its beginning, the National Pipe & Foundry Company had realized a greater aggregate profit from its soil pipe line than from its steam pipe line. Since the Walworth Manufacturing Company already had a market for soil pipe, it could afford to undertake the manufacture of this product.

As the National Pipe & Foundry Company did not manufacture a full line of fittings, it had to offer inducements to jobbers to split their full line orders. Moreover, it did not have a warehouse for finished goods. For these reasons, and because it had low overhead charges and wished to obtain a rapid turnover of its capital, it quoted lower prices than did the Birmingham manufacturers. Until it had overcome the handicaps of not manufacturing a full line and of not maintaining a warehouse, it could not raise its prices to the same level as those of the Birmingham manufacturers.

The Walworth Manufacturing Company's engineer made a survey of the plant of the National Pipe & Foundry Company at Attala; the principal parts of his report were as follows:

The plant covered 12 acres adjacent to the tracks of the Southern Railway, with which it had a spur track connection. The plant was one-half mile from the town proper and was contiguous to a tract of 200 acres of the National Land Company, which was owned by the same interests that owned the plant. A grade was being built for a spur track to connect with the line of the Louisville and Nashville Railroad about five-eighths or three-fourths of a mile from the plant. Factory refuse was being used for the filling. A spur track also might be built to connect with a third railroad.

The plant employed 290 people. A satisfactory labor condition existed; the employees seemed willing to do any sort of work required of them and to work at high speed. Negro and white laborers worked side by side.

The factory was a low, one-story building of cheap mill con-

EXHIBIT 3

BALANCE SHEET OF NATIONAL PIPE & FOUNDRY COMPANY AS OF DECEMBER 31, 1923 AND 1924

	December 31, 1923		December 31, 1924	
ASSETS				
Plant	$333,788.19		$369,456.49	
Less Depreciation	86,296.94	$247,491.25	102,867.27	$266,589.22
Current Assets:				
Raw Material	$ 15,540.33		$ 21,054.09	
Supplies	5,352.59			
Finished Goods	30,363.20		29,806.62	
Prepaid Insurance	2,462.89		2,369.40	
Accounts Receivable	107,270.05		102,792.56	
Notes Receivable	793.75		793.75	
Acceptances	8,053.86		5,899.47	
Cash	3,894.19	173,730.86	3,199.15	165,915.04
		$421,222.11		$432,504.26
LIABILITIES				
Current Liabilities:				
Notes Payable	$ 13,458.38		$ 17,373.79	
Accounts Payable	134,574.57	$148,032.95	143,590.33	$160,964.12
Reserve for Taxes		2,622.17		2,206.94
Capital Stock:				
Preferred	$ 25,000.00		$ 25,000.00	
Common	100,000.00	125,000.00	105,000.00	130,000.00
Surplus		145,566.99		139,333.20
		$421,222.11		$432,504.26

struction. Although the ceiling was not high enough to permit proper traveling crane service, the building was light and airy. Two 90-inch cupolas lined to 72 inches melted 20 tons per hour in the afternoon. Although the sand was handled in narrow-gauge trucks on tracks or in overhead monorail cars moved by hand instead of in the more efficient automatic conveyors, the methods were effective. The fittings patterns, steam and soil pipe, were well proportioned and within the inspection limits of the Walworth Manufacturing Company; in some instances they were superior to those made at Kewanee or Boston. The finishing equipment was not up to the foundry standard but was more than adequate for the output at the time. The wisdom of continuous pouring was doubted, because of the hot weather, the sand hauling, and the consequent danger of appearing to drive the men and, thus, of destroying the esprit de corps which existed at the time.

According to one investigator's report, excluding the land value, the plant could not be duplicated in the South for less than $400,000 or possibly $450,000. The company had grown out of earnings, and considerable improvements and additions had been made which were not shown on the company's books. A separate appraisal figure secured by the president of the Walworth Manufacturing Company gave a land value of $56,000 and a sound depreciated value of building and equipment of $570,000. To increase the production to 2,000 tons a month and to make other necessary improvements would cost approximately $250,000. The balance sheets of the National Pipe & Foundry Company for December 31, 1923, and December 31, 1924, were as shown in Exhibit 3.

EXHIBIT 4

SALES OF NATIONAL PIPE & FOUNDRY COMPANY, 1917 TO 1923, INCLUSIVE

Year	Weight in Tons	Amount	Per Ton
1917	423	$ 50,760	$120
1918	1,252	160,256	128
1919	834	108,420	130
1920	2,741	391,963	143
1921	1,021	121,499	119
1922	2,538	215,730	85
1923	4,935	463,890	94

Exhibit 5

Income Statement of National Pipe & Foundry Company, 1916 to 1924, Inclusive

	1916	1917	1918	1919	1920	1921
Profit or Loss on Soil Pipe and Fittings Sales	$16,876.60	$45,903.13	$15,330.72	$72,442.79	$95,883.19	$ 34,077.01*
Profit or Loss on Cast-Iron Fittings Sales	....	3,682.22*	11,274.86*	11,381.69*	22,072.78	14,044.09*
Subtotal	$16,876.60	$42,220.91	$ 4,055.86	$61,061.10	$117,955.97	$ 48,121.10*
Miscellaneous Credits:						
Discounts Earned	$ 58.13	$ 19.91	....	....	....	$ 36.91
Bad Debts Collected	....	....	....	....	....	....
Labor Discount	728.87	3,365.69	$ 2,682.43	$ 3,528.82	$ 7,995.52	2,839.33
Total	$17,663.60	$45,606.51	$ 6,738.29	$64,589.92	$125,951.49	$ 45,244.86*
Deductions:						
Bad Debts	....	....	....	....	$27,418.56	$ 7,183.01
Interest on Floating Debt	$ 489.91	$ 1,414.67	$ 1,686.14	$ 1,875.75	$ 1,256.59	$ 1,008.91
Bond Interest	760.00	1,061.25	918.75	....	....	....
Subtotal	$ 1,249.91	$ 2,475.92	$ 2,604.89	$ 1,875.75	$ 1,256.59	$ 1,008.91
Total Deductions	$ 1,249.91	$ 2,475.92	$ 2,604.89	$ 1,875.75	$28,675.15	$ 8,191.92
Net Total	$16,413.69	$43,130.59	$ 4,133.40	$62,714.17	$97,276.34	$ 53,436.78*
Depreciation	....	13,411.11	....	9,592.93	14,642.95	17,625.07
Net before Taxes	$16,413.69	$29,719.48	$ 4,133.40	$53,121.24	$82,633.39	$ 71,061.85*
Federal Taxes	....	....	....	....	16,627.56	29,179.04
Net Income after All Charges	$16,413.69	$29,719.48	$ 4,133.40	$53,121.24	$66,005.83	$100,240.89*

*Loss or Deficit.

EXHIBIT 5 (*Continued*)

INCOME STATEMENT OF NATIONAL PIPE & FOUNDRY COMPANY, 1916 TO 1924, INCLUSIVE

	1922	1923	1924	Total for 9 Years	Average
Profit or Loss on Soil Pipe and Fittings Sales	$32,370.97	$43,021.38	$ 4,009.35*	$283,742.42	$31,526.94
Profit or Loss on Cast-Iron Fittings Sales	8,475.54	30,184.35	16,507.35	36,857.16	4,095.24
Subtotal	$40,846.51	$73.205.73	$12,498.00	$320,599.58	$35,622.18
Miscellaneous Credits:					
Discounts Earned	....	$ 15.31	$ 350.25†	$ 480.51	$ 53.39
Bad Debts Collected	$ 4,794.16	4,199.20	....	8,993.36	999.26
Labor Discount	4,668.35	5,911.77	7,324.66	39,045.44	4,338.38
Total	$50,309.02	$83,332.01	$20,172.91	$369.118.89	$41,013.21
Deductions:					
Bad Debts	$ 4,002.60	....	....	$ 38,604.17	$ 4,289.35
Interest on Floating Debt	$ 5,057.59	$ 7,577.97	$ 5,000.67	$ 25,368.20	$ 2,818.69
Bond Interest	....	....	....	2,740.00	304.44
Subtotal	$ 5,057.59	$ 7,577.97	$ 5,000.67	$ 28,108.20	$ 3,123.13
Total Deductions	$ 9,060.19	$ 7,577.97	$ 5,000.67	$ 66,712.37	$ 7,412.48
Net Total	$41,248.83	$75,754.04	$15,172.24	$302,406.52	$33,600.73
Depreciation	14,454.55	16,570.33	2,835.70	89,132.64	9,903.63
Net before Taxes	$26,794.28	$59,183.71	$12,336.54	$213,273.88	$23,697.10
Federal Taxes	....	1,563.75	16,570.33	63,940.68	7,104.52
Net Income after All Charges	$26,794.28	$57,619.96	$ 4,233.79*	$149,333.20	$16,592.58

*Loss or Deficit. †Garage rent.

The sales of the National Pipe & Foundry Company from 1917 to 1923, inclusive, are given in Exhibit 4.

The income account of the National Pipe & Foundry Company for the years 1916 to 1924, inclusive, is shown in Exhibit 5.

As previously stated, Attala was close to Gadsden and Alabama City. The plant of the Gulf States Steel Company was located at Gadsden. At Attala there was one mine, a hosiery mill, and the plant of the National Pipe & Foundry Company. There was a surplus of common labor. Common labor rates were 25 cents an hour for a 10-hour day. Housing conditions were poor, but living costs were approximately one-third less than in Birmingham.

The Walworth Manufacturing Company decided not to construct a plant of its own in any one of the cities listed, but to purchase the National Pipe & Foundry Company.

Commentary: No important consideration of policy is presented by the first part of this case; it deals with a survey of costs to determine the specific location of a manufacturing unit in the Birmingham district, which district, as the result of a previous study, was judged to be one of lower production costs than those of either Chicago or Keokuk. The decision as to whether to build a new plant and set up a new organization or to purchase the National Pipe & Foundry Company, a going concern, involved, however, considerations of policy which are of major significance.

The advantages of any one of the three areas, Chattanooga, Birmingham, and Gadsden, over the others, as a location for the southern production unit of the Walworth Manufacturing Company were not great. Labor was sufficient in each place, and, in general, of a nontroublesome nature, although in this respect the larger cities were less desirable. Wages in Gadsden were lower than those in Birmingham, and as low as those in Chattanooga. In each place raw material costs were practically the same and transportation facilities were adequate. Power costs and service likewise were satisfactory in each district. In brief, the locations possessed similar advantages except that possibly Gadsden was slightly more favorable with regard to labor factors.

In view of this indifferent choice as among Chattanooga, Birmingham, and Gadsden, the consideration presented by the opportunity to purchase the National Pipe & Foundry Company, a going concern, located at Attala, near Gadsden, is of significance. The physical equipment of the National Pipe & Foundry Company, together with improvements and new equipment, would be as satisfactory as a newly constructed

plant and could be secured at a cost slightly lower than the cost of building a new plant. Capitalized earnings, in so far as they could be estimated, indicated a lower value for the National Pipe & Foundry Company than that represented by the price set by its owners. In this instance, however, the Walworth Manufacturing Company was interested primarily in securing a production unit, and it was upon this basis that the company considered the purchase of the National Pipe & Foundry Company. The volume of business to be obtained with the going concern would be an additional advantage of purchasing over building. As the productive capacity of the industry was already more than adequate, the construction of a new plant would have augmented the maladjustment of productive capacity to demand.

The fact that a working organization would be secured along with the plant of the National Pipe & Foundry Company was of special significance, as the Walworth Manufacturing Company had had no experience in the South. Northern companies, upon first undertaking operations in the South, have found expensive their mistakes caused by lack of knowledge of southern problems. This has been true especially with regard to labor, administrative personnel, and public or community relations. In case the plant were purchased, furthermore, there would be saving in the time consumed in undertaking operations.

This going-concern value of the National Pipe & Foundry Company supplemented the conclusion that the Gadsden district was a satisfactory one. It completed the argument favoring entrance into that district and the purchase of that company by the Walworth Manufacturing Company.

November, 1927 H. N. G.

Tottenham Motor Company[1]

MANUFACTURER—AUTOMOBILES

Inventory Valuation—*Method of Determining.* Prior to 1915, a company manufacturing automobiles had valued its inventory, which ordinarily amounted to from 20% to 25% of the annual sales, at current market prices or at cost prices, whichever were lower. Because, in 1915, prices had begun to fluctuate widely, the company adopted the "basic method" of inventory, under which the minimum inventory, which was set definitely for purposes of production control, was valued at prices for a base year, in this case 1915, and the remainder of the inventory was valued at current prices. In 1922, the market prices of many materials fell below the 1915 prices; the company then concluded that the basic method had served its purpose for the time and decided to return to the method of inventory first employed. The basic method, however, had minimized fluctuations in the company's profits, had added to its financial stability, and was considered sound.

(1922)

The inventory of the Tottenham Motor Company ordinarily amounted to from 20% to 25% of the company's annual sales. Prior to 1915, the company had valued its total inventory at current market prices or at cost prices, whichever were lower. In that year, prices of the materials which the company used had begun to fluctuate widely. The company had come to the conclusion that the practice of valuing the inventory at current prices in a period of fluctuating prices disturbed the financial stability of the firm, because the result was that annual net profits showed similar wide fluctuations. The company was of the opinion that when prices were rising, net profits, under this method of valuing inventory, would be unduly large, and that when prices declined, the profits shown would be unduly small.

In 1915, therefore, the company had adopted a method of inventory valuation which it referred to as the "basic method." Under this method, the minimum inventory, which was set definitely for purposes of production control, was valued at prices for a base year, in this case 1915, and the remainder of the inventory was valued at current prices. In 1922 the market prices of many of the company's materials fell below the prices

[1] Fictitious name.

for 1915, and the company considered discontinuing the basic method and again valuing its total inventory at current prices.

The Tottenham Motor Company maintained an effective control of raw materials, finished parts, and work in process. In all stores departments a careful classification of materials and parts had been made. Maximum and minimum inventory limits had been set for each item; when the stock of an article approached the minimum, an order for its replenishment was issued immediately. The minimum total inventory for the entire company had a value of approximately $4,500,000 based upon the prices of 1915. The maximum total inventory permissible under the plan of control, valued on the same basis, amounted to about $6,500,000. The actual total inventory at 1915 prices usually ranged between $5,000,000 and $6,000,000, although the company's efforts to purchase advantageously in periods of rapidly changing prices sometimes resulted in an inventory larger than the maximum set. Exhibit 1 shows, for the seven years from 1915 through 1921, the value of the company's minimum or basic inventories at 1915 prices and at current prices, and the value of the total actual inventories at 1915 prices, at current prices, and as computed under the basic method, by which the minimum inventories were valued at 1915 prices and all additional inventories at current prices.

When it adopted the basic method of valuing its inventory, the company had concluded that the minimum inventory, since

EXHIBIT 1

VALUES OF TOTTENHAM MOTOR COMPANY'S MINIMUM AND TOTAL INVENTORIES AT 1915 PRICES, AT CURRENT PRICES, AND WITH MINIMUM INVENTORIES AT 1915 PRICES AND ALL ADDITIONAL AT CURRENT PRICES, FOR YEARS 1915 TO 1921, INCLUSIVE

December 31	Minimum Inventory at 1915 Prices	Minimum Inventory at Current Prices	Total Inventory at 1915 Prices	Total Inventory at Current Prices	Total Inventory, Minimum Quantity at 1915 Prices, and All Additional at Current Prices
1915	$4,500,000	$4,500,000	$5,700,000	$5,700,000	$5,700,000
1916	4,500,000	6,500,000	5,900,000	8,500,000	6,500,000
1917	4,500,000	8,900,000	5,400,000	10,100,000	6,300,000
1918	4,500,000	8,100,000	6,200,000	11,100,000	7,500,000
1919	4,500,000	7,400,000	5,800,000	9,500,000	6,600,000
1920	4,500,000	8,300,000	5,500,000	9,200,000	6,300,000
1921	4,500,000	5,000,000	5,600,000	6,200,000	5,700,000

it probably could not be reduced so long as the existing sales volume was maintained, should be regarded as a fixed investment, just as the buildings and machinery were. And, just as increases in the value of the buildings and equipment were not shown as profits in the company's operating accounts, so any increases in the market value of this minimum inventory were not to be taken account of. The company, from 1915 through 1921, had valued its minimum inventory at 1915 prices; only that part of the inventory which was in excess of the minimum had been valued at cost or at market prices. The effect of this practice upon the net profits appearing in the company's accounts for the seven years from 1915 to 1921, inclusive, is shown in Exhibit 2.

Exhibit 2

Annual Net Profits of Tottenham Motor Company for 1915 to 1921, Inclusive, with Inventory Valued by Basic Method* and with Inventory Valued at Cost or Current Market Prices

Year Ending December 31	Excess of Inventory Valuation at Current Prices over Valuation by Basic Method*	Net Profits—Inventory Valued by Basic Method*	Net Profits—Inventory at Cost or Market
1915		$ 1,800,000	$ 1,800,000
1916	$ 2,000,000	2,300,000	4,300,000
1917	3,800,000	2,100,000	3,900,000
1918	3,600,000	2,400,000	2,200,000
1919	2,900,000	2,700,000	2,000,000
1920	2,900,000	2,000,000	2,000,000
1921	500,000	1,600,000	800,000 (loss)
Total	$15,700,000	$14,900,000	$15,400,000

*Minimum inventory at 1915 prices, remainder of inventory at cost or market prices.

During the seven years from 1915 through 1921, the company's annual net profits, with the inventory valued by the basic method, varied from a minimum of $1,600,000 in 1921 to a maximum of $2,700,000 in 1919; with the inventory valued at cost or current market prices, the net profits shown varied from a loss of $800,000 in 1921 to a maximum profit of $4,300,000 in 1916. Thus, the basic method of valuation had seemed to minimize fluctuations in the company's profits and, consequently, to preserve the financial stability of the firm.

The Tottenham Motor Company was confident that the basic method of valuation was sound. During 1922, however, when the market prices of many of the company's materials fell below the

prices of 1915, the company concluded that the basic method had served its purpose for the time, at least. The company, consequently, abandoned that method for the method formerly used, whereby the total inventory was valued at current market prices, or at cost prices, whichever were lower.

COMMENTARY: The net effect of the procedure followed by the Tottenham Motor Company was to refrain from showing, in periods of rising prices, all the profits which would be shown under the ordinary method of inventory valuation—namely, cost or market, whichever is the lower. Thus the issue resolves itself into a question as to whether a conservative financial policy should be followed at the expense of sacrificing the commonly accepted basis for valuing inventory; as a second question, it might be asked whether, if the financial policy seems wise, an accounting procedure could not be devised which would be unobjectionable.

It is clear that a period of rapid inflation, followed by a period of perhaps still more rapid deflation, is fraught with much danger to any but the strongest and most wisely handled businesses. Any policy which will tend to avoid the worst excesses of such a period should at least be viewed with favorable interest; in this case there is good precedent for the procedure of the Tottenham Motor Company, though the precise methods followed have varied in different cases. The United States Steel Corporation, the International Harvester Company, and the National Lead Company all followed the practice, during the high price era, of taking inventory at something less than either cost or market; in this way they showed lower profits during the war years than they would have shown on the orthodox basis, but were able to display a corresponding strength when the period of deflation occurred.[2] The authority of these corporations, supported by that of the accountants who certify their reports, lends great weight to the proposal.

The central argument for this procedure is that a portion of the profits shown during a period of rising prices, namely, that portion which depends upon the increase in the value of the inventory over its value at the beginning of the inflation period, is transitory and unreal; to the extent that deflation follows, and it is practically certain to follow in considerable measure, these profits will be swept away. It may be argued that arithmetically the profits will in the long run be the same under either method. But the difficulty is that if the apparent large profits for prosperous years are regarded as true profits, there is serious temptation to extravagance; it is likely either that more will be paid out in dividends than should properly be paid, or

[2] See *Journal of Accountancy*, December, 1926, pp. 429-438.

else that large sums will be invested in extensions of the fixed plant and equipment. In either case the company's current position is prejudiced, and it finds itself in a more exposed position when the day of reckoning comes.

The argument that a minimum inventory is just as much a fixed investment as that tied up in the buildings and machinery is true in the sense that a certain amount of money is constantly invested therein. The two cases are not precisely parallel, however, in that, in the case of the fixed assets the identical pieces of equipment remain from one period to another, whereas with the inventory of materials the old materials are consumed and replaced by new materials within one fiscal period; and the difficulty is that the new materials, in the conditions contemplated, actually cost more than did the old inventory. This point and others advanced by the Tottenham Motor Company are, however, wholly secondary to the question of the financial wisdom of the policy.

It is, therefore, worth while to observe the different procedures followed by the three corporations above mentioned, and to inquire which of them will best meet the accounting objections. These objections center almost entirely in the departure from a practice so widely established that it is believed that a person who is interested will be misled by the innovations. The National Lead Company after 1914 valued the normal stock of its principal material at the lowest price touched in 1914; since this low price has never since been reached, the National Lead Company's inventory is still valued by this basic method. In the 1920 annual report of the company a full statement on this subject was made. The International Harvester Company was less drastic in its valuation policy; it began only in 1917 and used the 1916 prices to value its minimum stock. Since these prices were again reached in 1921, the procedure was then abandoned and a return made to the cost or market basis. In the report of each year explanation was made of the method of valuing the inventory. The United States Steel Corporation has since 1916 carried a reserve on its inventory to reduce the inventory to what were regarded as normal prices; in the balance sheet the net inventory figure was shown, but elsewhere in the report a detailed statement was made each year in which the exact amount of the reserve was shown, and the change in it for that year.

It would seem that some policy of this sort is in the interests of wise financial management. The only real objection occurs if the procedure is carried on in a form to mislead interested parties about the real situation; the methods of the United States Steel Corporation afford full information to anyone who cares to read its reports.

The income tax aspect of the subject is interesting. The Internal Revenue Bureau has hitherto considered it essential to treat the 12 months' period as the fiscal period upon which to base all its calculations; for the purpose of treating all taxpayers alike it has not seen fit to permit the use of the basic method of inventory valuation for tax purposes. This, however, did not prevent the above named companies from considering it to be good financial policy. In England the basic method was allowed by the tax authorities, no doubt because of their practice of averaging profits for the last three years for the purpose of determining taxable income.

In essence the scheme consists of providing a reserve of profits; since the principal contingency against which such reserve is created is the possible decline of inventory values, it is reasonable to relate the amount of the reserve to the inventory.

April, 1927 T. H. S.

Fairmount Manufacturing Corporation[1]

MANUFACTURER—MOTORS

Cost Accounts—*Keeping Separate Costs for Small Articles Manufactured for Stock.* A company manufacturing motors had found that for small articles manufactured for stock and ordered frequently, the costs on different orders of the same article were so intermingled that it was difficult to obtain separate costs for each order. A firm of accountants employed by the company recommended that there be one stock order number for each article, that all costs for that article be recorded under the one number, and that the unit cost be determined by dividing the total costs of all items and operations entering into the article by the number of finished articles produced during the cost period.

(1918)

The Fairmount Manufacturing Corporation was formed in the fall of 1917 to take advantage of the war demand for small motors. After a six months' period of operation, it was found advisable to change the system by which costs were obtained. Outside advice was desirable, and for this purpose a New York firm of accountants was asked to send a representative to examine the company's methods and to recommend such changes as appeared to him to be advisable.

The company had found that when it attempted to keep separate costs upon small articles manufactured for stock and ordered at frequent intervals, the result was that the materials for different orders of the same article were so intermingled, with consequent confusion in records for labor and burden, that it was impossible to obtain separate costs for each order with any degree of accuracy. In order to remedy this defect, the following procedure was recommended by the New York auditor.

A. Definition

1. The term "stock orders" means such commodities as are manufactured for stock purposes, and not for any particular sales order. The class of commodity that falls under this classification is as follows: valves, nuts, washers, small parts, rivets, bolts, and flanges.

2. The point to be understood distinctly in designating a "stock order" is that the commodity to be manufactured is not to be used for a special order, and that it is the purpose of the management to carry a stock of such an article.

[1] Fictitious name.

3. If it is the intention of the management merely to produce a quantity of any article, or combination of articles to satisfy one, or a number of orders, then it is not the purpose that a stock order be used, but instead a standard manufacturing order should be issued in each instance; and where it is considered impossible to keep costs separately for each order, owing to the operation for more than one order being performed simultaneously, then a combination order should be issued covering the particular orders in question, and the consolidated cost contained upon this particular order should be divided pro rata among the orders covered thereby.

4. The main purpose of a stock series of orders is to accommodate the requirement which necessitates frequent ordering of material of the same kind, with the consequent impossibility of segregating the cost during the process to the various orders.

5. For this reason, it has been deemed best, where material of a kind is being frequently ordered, that one stock order number should exist for such an article—all costs being recorded under the one number, and the unit cost of each article being determined monthly as the total costs of all items and operations entering into that article, divided by the number of finished articles of that commodity produced during that cost period. Where what are considered stock commodities are produced at longer intervals than cited in the foregoing, it is permissible to issue a separate order in each instance.

B. Issuing Orders to Replenish Stock of Stock Parts

1. The various storekeepers who are responsible for maintaining stock of the respective stock materials coming under their jurisdiction are also responsible for the issuing of requisitions to replenish their stock when necessary. These requisitions should state the quantity required, description, standard manufacturing order number, and a requisition number. This requisition should be forwarded to the Accounting Department, which will then issue its stock order to the respective departments. The required number of copies should be given to the department, or departments, which will manufacture.

C. Method of Determining Unit Cost of Stock Orders

1. The difficulty involved in determining costs of this character is that unless condemnations are reported at the various stages where they occur, the proper credit by material or item or operation will not be given to each order number, with a consequence that the absolute unit cost is not obtained. It is not considered necessary that the condemnations be obtained by operations; but, if possible, the condemnations should be obtained by article, or part (according as the cost is kept), and monthly, if possible, credit should be given to the particular order number, and the scrap account charged at the scrap value of such condemnation.

2. Since it is recognized that condemnations occur in practically all items of stock manufacture, and that they occur during the various

stages of manufacture, thus requiring a greater number to be ordered than is actually completed, proper care must be exercised to obtain the total number of good pieces, or parts, produced under each operation, or cost of material. This number, divided into the figures representing such labor, expense, or material, will supply the unit cost under each element of the cost, the aggregate of which unit costs represents the unit cost of such article or part. This unit value times the parts completed during that cost period should be the value of completed parts transferred into the inventory account. The remainder value appearing upon each order should represent the cost of uncompleted parts in process.

D. Accounting Procedure for Rivets and Bolts

Cost should be prepared according to the diameter only (up to ½ inch and over ½ inch), and the product shall be expressed in weight. Special inventory accounts should be prepared for each size (diameter), and monthly cost sheets should be the means for the preparing of the journal voucher, both for consumption and production. Labor is now being reported according to diameter, and is consequently easily accumulated to each of the products. Operating expenses should be distributed to each size, upon the best basis determinable, which is believed to be the labor basis. Under this arrangement, an inventory account is provided for each size, which inventory account will be accumulated both by weights and values, received and disbursed, and will be the means from which the material division will obtain its monthly average price for consumption during the subsequent month. Scrap credit should be assigned to each size, upon the basis of weight charged, and should be shown upon the respective cost sheet.

Commentary: A form of costing by class of product is described in this case. When different lots of the same product are repeatedly made, it is an unnecessarily burdensome procedure to treat these lots as separate orders and to accumulate individual costs on each lot. A standing account may be opened for each article, and all costs incurred on that article during a given period may be charged to it. The principle is of wide application, being in fact an adaptation of the process cost idea; it is one of the principal labor-saving devices in cost records.

The description of the procedure to be followed is not at all points clear and consistent, and in some cases would lead to erroneous results. The following observations are offered by way of amplification or correction:

In paragraph 3 of Section A, a distinction is drawn between stock orders and a combination of ordinary orders being put through for customers. Every manufacturer who has large numbers of orders to route through his factory, some of them for similar products, will make arrangements to have such similar orders "collated," as it is often

called. Such collated orders are not necessarily for identical products, but if they are sufficiently alike to be put through together, a saving is thereby effected. They nevertheless continue to be groups of individual orders, upon each of which a quotation probably has been given to the customer—hence the necessity for costing them individually.

The latter part of paragraph 1, Section C, stating that records of condemnations by operations are not necessary, so long as the total condemnations per article are secured, evidently has accounting procedure only in mind; for operating purposes, that is, for observing actual performance, it is necessary to have some form of record to indicate where spoiled work actually arises and whether it is excessive. Such information could, however, be supplied to foremen without putting it through the accounting records here described.

Paragraph 2 of Section C involves an error in arithmetic which, if the volume of this business be large, may amount to considerable sums of money. Instruction is there given to find the total cost of an article by adding together the individual operation costs through which that article passes; these operation costs are to be determined by dividing the good production *of each operation* into the total costs of that operation. In a sequence of operations applied to one kind of article, a number of articles will be spoiled at each operation; part of the good production of the earlier operations will not be good production of the final operation, and the unit costs of these earlier operations will be understated when the final cost comes to be ascertained. The following table will illustrate the point:

Operation No.	No. Articles Entered	Good Production Completed	Total Cost—Labor and Burden	Cost per Operation
1	200	190	$190.00	$1.00
2	190	185	92.50	.50
3	185	175	175.00	1.00
4	175	160	120.00	.75
5	160	150	112.50	.75
			$690.00	$4.00

By adding operation costs in the final column, the total cost per article, exclusive of material, is found to be $4. But by dividing the final good production, 150 articles, into the total cost of $690, the cost per article is found to be $4.60, which is the correct figure. Any manufacturer having a series of operations, with loss of product at each stage, must thus beware of finding a total cost by adding individual operation costs, without correction for subsequent losses from spoilage.

February, 1927 T. H. S.

Fairfax Wire Company[1]

MANUFACTURER—WIRE AND CABLES

Cost Accounts—*Machine-Hour Basis Substituted for Labor-Cost Basis in Allocation of Factory Burden.* A company manufacturing twisted wires and cables divided its plant, for operating and accounting purposes, into approximately 60 centers, each having a number of machines. For the various types of wire manufactured, it kept separate cost sheets, showing the cost, per 1,000 feet, of raw material, of partly manufactured material, and of direct labor. Burden was distributed to the different lines of product as a direct labor cost. Because the labor-cost basis was believed to be inaccurate, inasmuch as direct labor cost bore no relation to the cost of a machine and was but a small part of total manufacturing cost; because the company realized that it was not making a fair profit on some lines; and because the direct labor-cost method was not adapted to the bonus system of wage payment which the company desired to use, the company changed its method of distributing factory burden to a machine-hour basis.

(1923)

The Fairfax Wire Company manufactured a great variety of twisted wires and cables, and also a number of electrical specialties. It did no wire-drawing in its own plant, but purchased wire which it afterwards twisted, braided, and insulated in many forms for different purposes.

For operating and for accounting purposes the plant was divided into approximately 60 centers. A center was a section of a main department or building, in which a specific operation or group of operations was performed, sometimes by a number of similar machines, and sometimes by one or two principal machines, with other different machines performing operations supplementary to those of the principal machines. Even where all the machines were similar, they might be of different sizes and so require subdivision for cost accounting purposes.

Production was divided about equally among three general types of goods. The first type included all standard wires produced for stock, which were those called for by consumers for general use. The second type consisted of wires being produced over a period of time to fill large orders for which formal contracts had been made with the buyers. The third general type

[1] Fictitious name.

included all kinds of special order work where specifications other than the stock standards were required by the buyer.

When an inquiry was received at the sales office, a quotation was immediately supplied to the customer by the estimating department. If the quotation was accepted, an order was given to the factory to deliver or manufacture the goods called for, and no further provision was made at any point to check the costs of that particular order. The quotation was built up from cost sheets supplied to the estimating department by the factory superintendent.

No costs of separate jobs were kept. For every type of wire manufactured by the company a separate cost sheet was submitted to the estimating department. These sheets, which were compiled by cost clerks, showed for each type of wire the cost, per 1,000 feet, of raw material, of partly manufactured material, and of direct labor. The cost sheets were rechecked regularly to insure their accuracy; they were altered at once to reflect changes in the direct labor costs; and the purchasing department furnished the estimating department weekly with a sheet indicating the price at which each kind of raw material was to be charged during the following week.

Practically all the manufacturing processes in the production of insulated wire were carried on by machines, which varied in size from large types costing thousands of dollars each to small braiding and twisting machines. Some departments had only two or three large machines, whereas others had as many as 2,000 small machines. On a few of the large machines a machine rate was used to distribute burden. This rate applied to running time, since idle time and setting-up time were included in the overhead charges. In general, however, the burden was distributed as a percentage of direct labor costs.

In the summer of 1923 the Fairfax Wire Company changed its method of distributing factory burden from a direct labor-cost basis to a machine-hour basis.

The first reason given by the factory manager for the change was that the labor-cost basis was believed to be inaccurate; the labor cost bore no relation to the cost of a machine, the floor space it required, or the power it used, which were the principal manufacturing costs. On most products, the cost of direct labor was no more than 15% or 25% of the total manufacturing cost.

In the second place, the company realized that it was not making a fair profit on some lines. The labor-cost basis resulted in an overcharge for burden costs on some lines and in an insufficient charge on others. Under keenly competitive conditions, "business follows estimates"; in the case of the Fairfax Wire Company, these estimates were too low because of inadequate knowledge of the real costs. Not only for purposes of control, therefore, did the Fairfax Wire Company want to know the cost of each line as closely as possible, but also because it wanted to secure a fair profit on every product. The company looked with disfavor upon the policy of establishing "line leaders" to be sold at a loss in order to attract additional orders which, it was hoped, would be profitable.

In the third place, the manager decided that the direct labor-cost method was not adapted to the bonus system of wage payment which the company desired to use. The bonus was computed from the combined efficiency of the machine and operator for a full week, based both on production and on hours operated. The labor-cost method of distributing burden did not sufficiently distinguish between savings effected through increased labor efficiency and those resulting from improved machine methods. The manager explained that many economies were attributable to better machinery. As an example of how improved mechanical devices affected production, he stated that during one fiscal period the company had increased production about 20%, but that during the same period the number of employees had decreased about 2%.

As a result of the adoption of a machine-hour rate by the Fairfax Wire Company, many lines of product received burden charges substantially different from those computed under the previous rates, and the company's price policies were materially affected.

METHOD OF FIGURING MACHINE-HOUR RATE

The first step in finding the rate for each machine was to assemble all factory charges, not including general administrative or selling expenses, into 12 classes, divided into two main groups. The first group included fixed burden charges and the second included operating burden, as follows:

Fixed Burden	Operating Burden
Fixed Employees	Operating Employees
Foremen	Indirect Labor
Rent	Indirect Materials
Machinery Depreciation	Steam
	Water
	Gas
	Fuel Oil
	Power

A consolidation of items occurred when the division into 12 classes was made; among the classes of fixed burden a fifth group, Machine Shop General, formerly had been used. Upon investigation it had been observed that this class of expense was small compared with other groups and, what was more important, that these expenses were mostly related to space occupied and could, therefore, be distributed to burden centers on a square-foot basis. This category was accordingly abandoned as a separate group and was consolidated with Rent. In the operating burden group a reverse process occurred; the two classes designated Indirect Labor and Indirect Materials formerly had been consolidated as Repairs and Supplies; it was, however, considered desirable to observe separately the labor and materials used for this purpose and the two were accordingly set up as separate classes.

The actual work of computing machine-hour rates was performed on a series of cards, here designated as Exhibits 1, 2, 3, and 4. These cards were not used merely to compute the burden rate; they also served as detailed records of the items entering into any of the 12 major classes of expense items or making up any one center or group of machines. In this respect they tied in with the more summarized figures given in the accounts of the factory ledger. They were, moreover, kept as a continuous record, and from them new actual burden rates were computed quarterly; a comparison thus was afforded with the standard burden rate previously computed for use in charging burden to the finished product.

A card like Exhibits 1*a* and 1*b* was used to assemble each of the 12 major expense classes listed above. Each of these cards usually contained a variety of charges, and the different kinds of items constituting the major class were subdivided by being listed in the columns headed A, B, C, and so on. The column at the right headed Key was filled in with the names of the items repre-

MONTH	A	B	C	D	E	F	G	H	I	J	K	TOTAL	KEY
JAN													A
FEB													B
MAR													C
APR													D
MAY													E
JUNE													F
JULY													G
AUG													H
SEPT													I
OCT													J
NOV													K
DEC													
TOTAL													
EST. MONTHLY													

Exhibit 1*a*: Front side of card used to assemble major expense classes of Fairfax Wire Company.

DISTRIBUTION															
CENTER	HOURS	RATE	AM'T	EST NORMAL	CENTER	HOURS	RATE	AM'T	EST NORMAL	CENTER	HOURS	RATE	AM'T	EST NORMAL	
									TOTAL					

Exhibit 1*b*: Reverse side of card used to assemble major expense classes of Fairfax Wire Company.

YEAR______ ACTUAL BURDEN CENTER______________

ITEM	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY	
ACTUAL HRS OPER														
	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE
FIXED BURDEN														
FXD EMP														
FOREMEN														
RENT														
MCHY DEP														
TOTAL FXD														
OPERATING BURDEN														
OPER EMP														
IND LABOR														
IND MAT														
IDLE TIME														
1/3 OVERTIME														
MAINTENANCE														
STEAM														
WATER														
GAS														
FUEL OIL														
POWER														
TOTAL OPER														
TOTAL ALL														
AV MONTH														

Exhibit 2a: Front side of card used to allocate total expense to burden centers in Fairfax Wire Company.

ITEM	AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		TOTAL	AV MONTH	AV RATE
ACTUAL HRS OPER													
	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE	AMOUNT	HRLY RATE			
FIXED BURDEN													
FXD EMP													
FOREMEN													
RENT													
MCHY DEP													
TOTAL FXD													
OPERATING BURDEN													
OPER EMP													
IND LABOR													
IND MAT													
IDLE TIME													
1/3 OVERTIME													
MAINTENANCE													
STEAM													
WATER													
GAS													
FUEL OIL													
POWER													
TOTAL OPER													
TOTAL ALL													
AV MONTH													

Exhibit 2b: Reverse side of card used to allocate total expense to burden centers in Fairfax Wire Company.

sented by these letters. Thus on the card for Fixed Employees the following items were found:

A. Factory Office Pay Roll
B. Chemical Laboratory
C. Factory Office Supplies
D. Superintendents' Pay Roll
E. Fire Insurance (a fraction)
F. Taxes (a fraction)
G. The House Journal Expense
H. Foremen's Dinner
I. Hospital

The card for Operating Employees, on the other hand, contained a variety of shop expenses more or less connected with operating labor, but not including their wages. In this way 12 cards accumulated for the year the total of all items charged to the 12 main expense classes.

The totals accumulated on this series of cards were then allocated to burden centers, for each of which a card similar to Exhibits *2a* and *2b* was prepared. Each class of expense was allocated to these burden centers on some appropriate basis. Thus, Fixed Employees was charged to each center in proportion to the number of employees there working; Foremen was distributed among the centers supervised by the foremen in proportion to the number of employees in each. Rent was distributed

ESTIMATED MACHINE HOUR BURDEN RATE

CENTER ______

LOCATION ______ YEAR ______

MACHINE

FLOOR SPACE (SQ FT.)

NORMAL EMPLOYEES

DIRECT LABOR

FIXED BURDEN

DATE	FIXED EMPLOYEES	FOREMEN	RENT	MACHINERY DEPREC	TOTAL	NORMAL MACHINE HOURS	RATE A	RATE B

OPERATING BURDEN

DATE	OPERATING EMPLOYEES	INDIRECT LABOR	INDIRECT MATERIALS	IDLE TIME

DATE	MAINTENANCE	STEAM	WATER	GAS	FUEL OIL

TOTAL	NORMAL MACHINE HOURS	RATE A	RATE B

DATE	POWER	HORSE POWER	MACHINES	COST PER H P HOUR	RATE A	RATE B
				EST MACH HR BURDEN RATE		

Exhibit 3: Card used to compute machine hour burden rate in Fairfax Wire Company.

on a square foot basis, and Machine Depreciation was the actual depreciation computed on the equipment of that center. All operating burden charges contained the actual amounts incurred by each center; Operating Employees, Indirect Labor, and Indirect Materials were specific charges to each center, as also was Maintenance; Steam, Water, Gas, Fuel Oil, and Power were all metered as closely as possible and allocated to each center as direct charges.

A center contained different machines, or different machine groups, for each of which a burden rate was desired; the charges thus gathered on Exhibit 2 were, therefore, again subdivided on an appropriate basis and the proper charges for each machine or machine group were accumulated on cards similar to Exhibit 3. Here the actual machine rate was shown on the extreme right in three amounts, one for Fixed Burden, one for Operating Burden, and one for Power, the total of the three being given at the foot of the card. The letters *A* and *B* indicated two different rates computed at different times. The rate was used for two principal purposes, and in both cases a single total machine rate was used. This total, multiplied by the number of hours which the machine had been run during the period, gave the total amount of burden to be regarded as earned burden and to be

MONTHLY BURDEN COMPARISON

YEAR ________ DEPT. ________

MONTH	CENTER ____			CENTER ____			CENTER ____			CENTER ____			TOTAL		
	ACTUAL	EARNED	GAIN OR LOSS	ACTUAL	EARNED	GAIN OR LOSS	ACTUAL	EARNED	GAIN OR LOSS	ACTUAL	EARNED	GAIN OR LOSS	ACTUAL	EARNED	GAIN OR LOSS
JAN															
FEB															
MAR.															
APR															
MAY															
JUNE															
JULY															
AUG															
SEPT															
OCT															
NOV															
DEC															
TOTAL															
AV MONTH															

Exhibit 4: Card used for monthly burden comparison in Fairfax Wire Company.

CARD NO. LOCATION DEPT. CENTER NO.

NAME MFR.

DATE	EQUIPMENT AND ADDITIONS DESCRIPTION	NO OR TYPE	MANUFACTURER	OUR PURCHASE ORDER NO	COST		INSTALLATION COST		INSTALLATION S O	TOTAL COST

Exhibit 5*a*: Front side of card index record for plant and machinery in Fairfax Wire Company.

DEPRECIATION RATE __________ CENTER NO ______

YEAR	COST TO DEPRECIATE			DEPRECIATION ANNUAL		DEPRECIATION TOTAL							

Exhibit 5*b*: Reverse side of card index record for plant and machinery in Fairfax Wire Company.

charged to the product. The rate was also used in estimating costs and quoting prices for products made on that machine.

The form shown in Exhibit 4 furnished a comparison between the actual burden, as accumulated on Exhibits 1, 2, and 3, and the amount of earned burden, that is, the burden charged to product, as above described.

The forms illustrated were not the original forms devised for this purpose. Exhibit 2 took the place of an older form in which the names of the months were arranged horizontally across the top of the card, front and back, and in which the items of expense were noted on the left-hand side. The principal reason for this change was to enable the column headed Hourly Rate to be added; in computing this rate it was easier to add the money columns vertically than to use the horizontal arrangement of the old card. The card reproduced as Exhibit 3 combined two older forms in one; the first of these older forms contained the data regarding the basis of distribution of the various groups of expenses, that is, machine hours, floor space, normal employees, and direct labor. These, it will be seen, in the new arrangement were noted briefly on the left side of Exhibit 3. The other information on the card was likewise arranged to permit a vertical addition of the several component parts of the rate in order to obtain the total machine rate. The different groups of expenses were also more distinctly set out than on the older card.

In conjunction with the foregoing records for burden, a card index record for plant and machinery was kept; Exhibits 5*a* and 5*b* show the design of this record. In the general ledger, three main accounts covered the plant and machinery. Machinery was an account that included the purchase price of all new machines; Installations was the second account, containing all costs of installing these machines in their proper places ready for operation; Plant Additions, which was the third account, included such special fittings or attachments to the main machines as it was desired to capitalize. The reason for this subdivision was that the company wanted to depreciate these three classes of assets at different rates.

COMMENTARY: The procedure described represented the results of a long period of experimentation with burden accounting. The change from a direct-labor basis to a machine-hour rate as a means of charging

burden to the product was undoubtedly sound; the small percentage of the total manufacturing cost which consisted of labor immediately suggests doubt as to the wisdom of using labor as a basis for burden distribution, a doubt which is further augmented by the fact that practically all the work was done by machine processes, with labor playing only an auxiliary part. In these circumstances, the cost of a product is in proportion to the time taken and to the operating cost per hour of the machine engaged. The costs resulting from the use of machine-hour rates were more reliable than those formerly obtained, and the company would have proportionately more enlightened guidance in its price fixing and its sales policy.

After a machine-hour rate had been determined, the most simple and accurate method of computing it was the next problem. In this connection it may be observed that if the machine-hour rate were the only thing wanted, a more direct and condensed procedure would be possible than that here described. The fact that the record was required to serve also as a subsidiary record to the ledger accounts, supplying more details for them, is responsible for the fullness of the data provided. It was, moreover, desired to compute a new actual rate each month, to be compared with the standard rate previously computed and then being charged to product.

A notable feature of the procedure here described is the assembling of burden charges into as few as 12 classes. One of the complexities of burden distribution is to handle a great variety of miscellaneous items in a simple and expeditious manner. It is noted in the problem that some 9 or 10 different items of expense were grouped under the heading of Fixed Employees; probably as many items would be found in each of the principal classes. This would mean over 100 different items of expense, and an attempt to distribute these individually to burden centers would involve much labor and give very confused results. If these numerous expense categories, therefore, could be reduced to a few simple groups, the results were likely to be more practical; the only condition essential to such grouping is that items so brought together should be susceptible of distribution to burden centers on a common basis.

With regard to Exhibits 5*a* and 5*b*, a plant ledger of this sort should conform closely with the summary accounts which are in the general ledger. Since it was deemed of importance to have three separate accounts, one for new machines, one for cost of installation thereof, and one for additions or accessories to these machines, these three classes of capital expenditure should be clearly distinguished in the card index records. The card shown in Exhibits 5*a* and 5*b* provides for combining the installation cost and the original cost into a total which,

on the back of the card, is depreciated in one lump sum; and plant additions are not provided for at all on the plant ledger cards. Probably a card which was divided horizontally into three divisions corresponding to the three ledger accounts would be more serviceable; on the back, three sets of vertical columns could be provided for separate depreciation of the different groups.

April, 1927 T. H. S.

Fowler Flour Mills[1]

MANUFACTURER—FLOUR

Cost Accounts—*Computing Power Costs by Kind of Power and by Unit of Product.* Of six mill units of a flour mill having no central power station, four were equipped to run by water power alone, by steam alone, or by a combination of the two; another to run by water power alone or by a combination of water power and electric power; and the sixth to be operated only by electricity. Water-power rights were owned by a water company, and the charge for power varied at different periods of the year. Electricity used by the milling company was purchased from a public service corporation. The company desired to develop an accounting system for its power department which would provide: first, the cost of operating each mill with each kind of power; second, a record of the efficiency of each power unit; and third, the average cost of power per barrel of flour, irrespective of the mill which produced it.

The six mill units of the Fowler Flour Mills were operated by water, steam and electric power. There was no central power station. Four mills were equipped to run by water power alone, by steam alone, or by a combination of the two; another mill was equipped to run by water power alone, or by a combination of water power and electric power; and the sixth mill could be operated only by electricity. The Fowler Flour Mills wished to develop an accounting system for its power department which would provide the following information: first, the cost of operating each mill with each kind of power; second a record of the efficiency of each power unit; and third, the average cost of power per barrel of flour, irrespective of the mill which produced it.

Although water was the cheapest form of power, there was seldom enough water available to operate five mills by water power at the same time. If all these mills were operated, one of them had to be driven by steam power, which was almost twice as expensive as water power. Under these circumstances, it was not considered fair to charge one mill with the total cost of the steam power it used, inasmuch as it was deprived of water power because the other mills were using all that was available.

The following exhibits summarize the existing conditions, and

[1] Fictitious name.

give the operating statistics of the individual mills for a 10-year period, from 1909-1910 to 1918-1919. The fiscal year was from August 1 to July 31.

EXHIBIT 1

SUMMARY OF POWER DATA FOR ALL MILL UNITS OF FOWLER FLOUR MILLS, SHOWING YEARLY AVERAGES FOR 10-YEAR PERIOD, 1909-1919

Mill	A	B	C	D	E*	F
Number of days each kind of power was used:						
Water	125	105	266	106		206
Steam	124	50		82		37
Electricity					277	
Water and Steam	11	113		80		24
Water and Electricity			59†			
Total number of days operated	260	268	289	268	277	267
Number of days idle	105	97	76	97	88	98
Percentage of idle time	28.8	26.6	20.8	26.6	24.1	26.8
Wheat flour produced, barrels (hundreds omitted)	874.4	1,349.1	558.4	1,520.6	1,146.0	526.7
Maximum daily capacity, barrels	3,500	6,000	2,200	6,000	4,200	2,100
Average actual daily production, barrels (round numbers)	3,360	5,030	1,930	5,670	4,130	1,970

*A six-year average. In 1913 Mill E was rebuilt and its capacity was increased.

†This figure is only a four-year average. The motor was not installed until 1915. The total number of days operated is not, therefore, the sum of the number of days operated on water power and the number of days operated on water power and electricity. The former is a ten-year average, and the latter a four-year average.

Exhibit 2

Power Data for Mill A of Fowler Flour Mills, for 10-Year Period, 1909-1919

Year	Number of Days Operated				Number of Days Idle	Barrels of Wheat Flour Produced
	Water	Steam	Water and Steam	Total		
1909–10	151	108	26	285	80	972,600
1910–11	33	196	5	234	131	910,900
1911–12	48	251	0	299	67	916,200
1912–13	86	202	9	297	68	913,400
1913–14	164	94	9	267	98	912,900
1914–15	148	100	0	248	117	820,500
1915–16	185	49	47	281	85	1,118,600
1916–17	204	17	0	221	144	718,700
1917–18	153	105	10	268	97	713,100*
1918–19	80	116	3	199	166	747,300
Average	125.2	123.8	10.9	259.9	105.3	874,400

*In 1917-18, 12,800 barrels of rye flour and 246,200 barrels of barley flour were produced. On coarse grain the output per day was decreased; this mill could grind only 65% as much rye flour and 50% as much barley flour as it could wheat flour. The figure given represents the total production, reduced to barrels of wheat flour.

Maximum capacity of wheat, 3,500 barrels per day.

Actual production, daily average, 3,364 barrels.

Horse-power requirements:

Milling 1,035 h. p.
Grain cleaning 200 h. p.

Power equipment:

One steam engine, 1,200 rated h. p.
One water wheel, 1,575 rated h. p.
One electric motor, 200 rated h.p.
Twelve auxiliary motors, 45.5 rated h.p.

Exhibit 3

Power Data for Mill B of Fowler Flour Mills, for 10-Year Period, 1909-1919

Year	Number of Days Operated				Number of Days Idle	Barrels of Wheat Flour Produced
	Water	Steam	Water and Steam	Total		
1909–10	90	5	189	284	81	1,349,500
1910–11	44	102	147	293	72	1,377,400
1911–12	76	98	52	226	140	1,033,400
1912–13	113	138	52	303	62	1,473,500
1913–14	158	18	109	285	80	1,424,000
1914–15	161	19	67	247	118	1,204,600
1915–16	41	3	253	297	69	1,770,400
1916–17	147	5	86	238	127	1,116,500
1917–18	116	67	115	298	67	1,567,600
1918–19	103	51	59	213	152	1,174,300
Average	104.9	50.6	112.9	268.4	96.8	1,349,100

Maximum capacity of wheat, 6,000 barrels a day.

Actual production, daily average, 5,026 barrels.

Horse-power requirements:

Milling	2.000 h.p.
Grain cleaning	400 h.p

Power equipment:

One steam engine, 1,600 rated h.p.

One water wheel, rated h.p.	1,145
One water wheel, rated h.p.	831
	1,976

One motor, 200 rated h.p.

Eight auxiliary motors, 20 rated h.p.

EXHIBIT 4

POWER DATA FOR MILL C OF FOWLER FLOUR MILLS, FOR 10-YEAR PERIOD, 1909-1919

Year	Number of Days Operated			Number of Days Idle	Barrels of Wheat Flour Produced
	Water	Water and Motor	Total		
1909–10	285		285	80	461,400
1910–11	290		290	75	431,200
1911–12	281		281	85	477,400
1912–13	301		301	64	584,000
1913–14	286		286	79	594,200
1914–15	280		280	85	519,100
1915–16	258	41	299	67	731,200
1916–17	232	56	288	77	496,900
1917–18	258	54	312	53	685,600*
1918–19	188	85	273	92	602,900
Average	265.9	59.0	289.5	75.7	558,400

*In 1917-18, 146,600 barrels of barley flour and 49,300 barrels of corn flour were ground. This mill could grind 50% as much barley flour and 54% as much corn flour as wheat flour. The figure shown is the total production, reduced to barrels of wheat flour.

Maximum capacity of wheat, 2,200 barrels a day; of durum wheat, 1,700 barrels a day.

Actual production, daily average, 1,929 barrels.

Horse-power requirements:
Milling and grain cleaning combined, 900 h.p.

Power equipment:
One water wheel, 845 rated h.p.
One electric motor, 150 rated h.p.
Five auxiliary motors, 29 rated h.p.

Exhibit 5

Power Data for Mill D of Fowler Flour Mills, for 10-Year Period, 1909-1919

Year	Number of Days Operated				Number of Days Idle	Barrels of Wheat Flour Produced
	Water	Steam	Water and Steam	Total		
1909–10	129	7	158	294	71	1,848,200
1910–11	65	88	139	292	73	1,682,100
1911–12	119	120	44	283	83	1,587,400
1912–13	111	140	35	286	79	1,694,100
1913–14	143	61	78	282	83	1,369,700
1914–15	135	89	17	241	124	1,127,800
1915–16	70	78	154	302	64	1,760,800
1916–17	101	0	124	225	140	1,374,900
1917–18	95	126	22	243	122	1,364,500
1918–19	97	110	26	233	132	1,396,700
Average	106.5	81.9	79.7	268.1	97.1	1,520,600

Maximum capacity of wheat, 6,000 barrels a day.

Actual production, daily average, 5,672 barrels.

Horse-power requirements:
- Milling, 2,000 h.p.
- Grain cleaning, 550 h.p.

Power equipment:
- Two water wheels, 745 rated h.p. for each.
- One steam engine, 2,000 rated h.p.
- One motor, 400 rated h.p.
- One motor, 150 rated h.p.
- Two auxiliary motors, 2 rated h.p.

EXHIBIT 6

POWER DATA FOR MILL E OF FOWLER FLOUR MILLS, FOR 10-YEAR PERIOD, 1909-1919

Year	Number of Days Operated (Electric Power Only)	Number of Days Idle	Barrels of Wheat Flour Produced
1909–10	260	105	616,100
1910–11	288	77	591,000
1911–12	308	58	587,100
1912–13	293	72	665,500
1913–14	286	79	1,107,100
1914–15	276	89	1,124,700
1915–16	289	77	1,317,500
1916–17	270	95	1,154,700
1917–18	295	70	1,170,600*
1918–19	249	116	1,001,300†
Average‡	277.5	87.7	1,146,000

*In 1917-18, 328,900 barrels of corn flour were ground. This mill could grind only 50% as much corn as wheat. The figure shown is the total production, reduced to barrels of wheat flour.

†In 1918-19, 100,500 barrels of corn flour and 26,500 barrels of rye flour were ground. This mill could grind only 65% as much rye as wheat. The figure shown is the total reduced to barrels of wheat flour.

‡A six-year average. In 1913 this mill was rebuilt and its capacity was increased.

Maximum capacity of wheat, 4,200 barrels a day.

Actual production, daily average, 4,129 barrels.
Horse-power requirements:

Milling, 1,000 h.p.
Grain cleaning, 300 h.p.

Power equipment:

Three electric motors, rated 1,000, 200, and 100 h.p. respectively.

Exhibit 7

Power Data for Mill F of Fowler Flour Mills, for 10-Year Period, 1909-1919

Year	Number of Days Operated				Number of Days Idle	Barrels of Wheat Flour Produced
	Water	Steam	Water and Steam	Total		
1909–10	202	25	30	257	108	543,900
1910–11	169	86	29	284	81	555,000
1911–12	188	80	28	296	70	533,700
1912–13	183	72	51	306	59	560,300
1913–14	232	22	26	280	85	565,600
1914–15	253	28	1	282	83	532,700
1915–16	293	0	10	303	63	648,400
1916–17	186	0	3	189	176	355,700
1917–18	247	22	36	305	60	659,000*
1918–19	107	36	25	168	197	312,200*
Average	206.0	37.1	23.9	267.0	98.2	526,700

*In 1917-18, 235,800 barrels of rye flour and 31,300 barrels of barley flour were produced. In 1918-19, 43,400 barrels of rye flour were produced. This mill could grind only 65% as much rye and 50% as much barley as wheat. The figures shown represent the total production, reduced to barrels of wheat flour.

Maximum capacity of wheat, 2,100 barrels a day; of durum wheat, 1,900 barrels a day.

Actual production, daily average, 1,973 barrels.

Horse-power requirements:
Milling and grain cleaning combined, 750 h.p.

Power equipment:
One water wheel, 1,000 rated h.p.
One steam engine, 800 rated h.p.

The supervisor of power of the Fowler Flour Mills favored the adoption of a system of standard costs. He wished to charge the power accounts with a predetermined amount of fixed charges and the actual costs of operating the equipment, and to credit each account at a standard rate per barrel of flour produced, based upon operations.

The cost of steam power might be divided conveniently into the cost of generating steam and the cost of manufacturing power. Steam produced in the boiler room was delivered through pipes to the engine room where it was converted into power. By this separation of costs, inefficiencies might be localized and their cause more easily eliminated.

As shown by the summaries of equipment given in Exhibits 2 to 7, four of the mills had separate power apparatus for grain cleaning, while in the other two, the grain-cleaning equipment was operated on the same shaft as was the mill. Auxiliary motors were used for packing flour and for operating belts and conveyors used in packing and loading. The small motors were a part of the machinery which they operated.

All water-power rights in the river on which the company's mills were located were owned by a water-power company. The nature of the water-power lease was such that the charge for water power might vary at different periods of the year. The terms of the water-power leases are summarized in Exhibit 8.

The water leased under priorities 5, 14, 20, 26, 29, and 35 might be used by either the A, B, C, or D mills. Since these mills were located on the same headrace, water used by one would decrease the water available for the others. The priority rights were a necessary protection, when water was low, to the patrons of the water-power company located farther down the river.

When the river was low, the water-power company notified all its patrons that a certain priority would be in force until further notice. This meant that anyone who held a lease with a priority number higher than the one in force could not use water. Thus if priority 30 were put into effect, the A, B, C, and D mills of the Fowler Flour Mills would have only 25 mill power available and the F mill would have only 3 mill power. According to the agreement, the cost of water which was not available was deductible from the contract price. Whenever a priority lower than 35 was

Exhibit 8

Priority Rights, Mill Power, and Yearly Rental under Water-Power Leases of Fowler Flour Mills

Mills	Priority	Mill Power		Yearly Rental	
A, B, C, and D	5	4		Free	
	14	4		Free	
	20	2		Free	
	26	12		Free	
	29	3		Free	
	35	14		$15,000	
			39		$15,000
F	9	2		$ 400	
	24	1		750	
	34	1½		500	
	47	3½		3,500	
			8		5,150
Grand Total			47		$20,150

Excess water at $6 per mill power day.* Payments were made quarterly.

*One mill power was equal to 75 theoretical horse power. Because of inefficiencies in the water wheels, only from 65 to 70 horse power were delivered on the drive shaft, and occasionally the horse power delivered per mill power was even smaller.

in effect, therefore, the A, B, C, and D mills might still use 25 mill power without incurring a charge.

Steam power was used by the Fowler Flour Mills whenever there was not enough water power available to operate a mill. When a mill which required about 2,400 horse power had only enough water available to develop 600 horse power, steam power was used to develop the remaining 1,800 horse power required to operate the mill at capacity.[2] The electricity used was purchased from a public service corporation.

Commentary: This case is one in which there is a temptation to complexity in the records—a temptation which should be resisted. Especially should any attempt be avoided to record in double-entry form those varying factors in the situation which can be more directly expressed by simple statistics outside the accounts proper. The ten-year schedules for the several mills are interesting as showing the variations which could take place in the extent to which each kind of power might be used in any one year. Unfortunately, any attempt to place unit costs alongside these annual figures would reflect changes in market prices of labor and supplies, rather than cost variations arising

[2] In other plants it had been found that the saving resulting from operating a steam engine below capacity was not proportional to the decrease in output. It was estimated that if an engine ran at 90% capacity, only about 2% of the cost of generating the steam and of converting it into power was saved.

from the kind of power used. The next factor in importance is weather, and the resultant water supply.

There were two main lines of attack upon the problem of what information should be presented to the management concerning the power situation. The first had to do with the economic long-time policy: should the company accept and continue its present power arrangements, or should it attempt to revise them radically, in the way of substituting other sources of power for the existing ones? The second aspect dealt with the possible short-time economies: accepting the status quo, the present equipment, was it being operated efficiently and cheaply from month to month? It was important that information should be supplied which would help in answering these two questions; but it was equally important that the two issues involved should not be confused. It may be observed that the desiderata mentioned in the first paragraph of the case as being the objectives of the company officials deal almost entirely with the short-time view, and ignore the long-time aspects.

Taking up the latter question first, the company would clearly wish to increase its resources of water power. But the sum total of the power was limited by natural conditions, and the percentage of the total water which was available to the Fowler Flour Mills was determined by its leases and priorities. In a growing community it was unlikely that this company would in future acquire rights to a larger share of the available power; even if expiring leases of others should be thrown on the market, it was probable that public bidding would put such a premium on them as to leave little saving as compared with other kinds of power. It was, therefore, largely useless to continue keeping detailed cost figures to prove what was already known, namely, that water was the cheapest form of power; no demonstration of the amount of savings could produce more of it. The choice between steam and electricity was, however, a more practical question; no natural limitations prevented an increase in steam-power capacity, if sufficient economy could be demonstrated as a probable result. In this connection the question arises as to why Mill E was equipped with electric power only; the answer is found in the fact that, for a small unit, purchased electric power is cheaper than steam power derived from a specially installed plant. A flour mill also has an advantage in operating 24 hours a day, a basis which enables it to secure very favorable rates from the electric power company. The ease with which electric power may be turned on and off and the relative absence of fixed charges are additional advantages of purchased electric power.

It would be desirable for the company to have on hand standard cost figures for the more important power units, notably for a pound

of steam, and for a horse-power hour of water, steam, and electric power, respectively. Such unit figures would be useful from time to time in considering the power situation, in evaluating the savings to be made from the cheaper kinds of power, in making distributions of power to different mills, and in computing a standard power cost of flour per barrel. These purposes would not, however, require continuous computations of standard unit costs; nor was it necessary to tie them in with the regular double-entry accounts. To get the charge per pound of steam, the fixed charges on the generating plant should be ascertained, and to them added the operating costs for labor, coal, oil, and cotton waste. The total of these costs should then be divided by the normal or average number of pounds of steam generated, in order to obtain a per pound cost. From this figure might be computed the proper charges to the steam-power plant and to the various departments to which steam heat was supplied. A similar computation, namely, dividing the average or normal number of steam horse-power hours produced into the total charges incurred by the steam-power plant, would give a standard cost per horse power hour of steam power; by the same methods the cost of water and electric power units might be computed.

Consideration must now be given to the current control of power costs. The subject presents two aspects: (1) the observation of power expenses from month to month, and (2) the economical use of power, in the sense of always using the most economical power available. With regard to the latter, this again could best be observed statistically, by figures not tied in with the financial accounts. Record would be kept of the kind of power used by each mill each day; information would always be on hand, from the priority records, as to the amount of water power available, and it would be easy to see whether the best possible use had been made of that power. These records, together with those previously discussed, cover all the principal questions relating to the optional use of the three kinds of power.

There remains the accounting question proper, the record and control of the current operating expenses for power. Here the main objective must be to measure the discharge of responsibility, and the several accounts should be designed accordingly. One of the large items of expense would be for manual labor, which would be under the power-plant manager; an account for it would indicate all changes from time to time. General and clerical help would be under a general plant official; his responsibilities should therefore be checked in another account. Variations in the kind of power used would be reflected chiefly in two accounts, Fuel, and Power Purchased; if more steam power were used, the former account would increase; the latter

account would show electric current and water power purchased from outside. Changes in these accounts should be interpreted in the light of the records, already mentioned, which show the amount of different kinds of power used and the conditions which justify that consumption. So long as per barrel costs did not change, there would be no occasion for further information; and if per barrel costs did change, an analysis of the records discussed would readily determine the reason.

The cost of repairs and renewals would be another considerable item; if a separate account were kept for it, anything out of line would at once be observed and the cause ascertained. This item would consist of two main parts, namely, labor, and materials used; they might conveniently be recorded in two accounts, if so desired. Supplies used would also be separately recorded, and the power-plant manager held responsible for keeping them within reason. All other power expenses might be noted in a Miscellaneous Power Expense account, any unusual items being carefully scrutinized.

Before the total of all the power expense accounts could be regarded as debits to flour mill operations, certain credits would have to be made for steam supplied for heating purposes, and for power used by elevators and machine shops and on other work not directly a part of the milling process. These charges might either be made as fixed standard charges, or on the basis of metered service at the standard unit charge already described. The balance of the power expense accounts would be the net sum to be used in computing the per barrel cost of flour; after taking all the other observations, however, nothing would be gained by computing currently the per barrel cost of flour for each kind of power used. If consideration were given first to the possible power policies and to current operating practice, and if the information relating thereto were sought in the most direct manner, all necessary information would be provided without undue complexity.

March, 1927 T. H. S.

Dorpat Tannery[1]

TANNERY—UPPER LEATHER

Production Costs—*Effect of Substituting Women Workers for Men.* A leather tannery contemplated the substitution of women workers for men in its upper leather finishing department, the capacity of which was limited to 40 operatives. In order to determine whether economies might be effected by such a change, the tannery requested its cost department to compute the lowest volume of production which women workers must turn out in order profitably to be employed in place of men.

The Dorpat Tannery, situated in St. Louis, was considering the advisability of changing from men workers to women workers in the upper leather finishing department. It therefore made some estimates on which to base its judgment of the probable economies of so doing.

The men employed in the upper leather finishing department worked on sheepskins. A force of 40 men could turn out 56,000 skins in a three months' period. The operations included seasoning or hand-doping, brushing, plushing, trimming, glazing, and rolling. All these operations were not performed on the same skins; a skin that was brushed would not be plushed, and a skin that was glazed would be neither brushed nor plushed. The capacity of the department was limited to 40 operatives; no more could conveniently be employed to bring production up to normal if the women were not able to produce as many finished skins as the men. Men employed in the finishing department were paid $30 a week; it was expected that women might be obtained for this work for $20 a week.

The value of the building containing this department was $20,000, and the value of the equipment was $25,000. Of the latter figure $10,000 applied to the seasoning and doping operations, on which 20 of the 40 men were employed. Depreciation on the building was figured at 5% per annum; depreciation on equipment at 10%; insurance at 2%; taxes at 3%; supervision and inspection, for 3 months, at $1,700; heat, light and power, for the same length of time, at $700; and other overhead expenses at $3,500 for three months.

[1] Fictitious name.

If women were employed in the upper leather finishing department, a new rest room would have to be fitted up at a cost of $1,000, and a matron employed at $30 a week. It also would be necessary to hire a man to do trucking, at $25 a week, to save the women from carrying heavy loads. Apparently the company could effect no saving in overhead by employing women.

It was expected that on some operations women would produce nearly as much as would men; on others they might turn out considerably less.

The cost department was asked to compute the lowest volume of production which the women workers must turn out in order profitably to be employed in place of men.

Commentary: The crux of the question raised in this problem is that overhead costs were to be increased in order to effect a decrease in labor costs. The limited capacity of the department, by prohibiting the employment of a larger number of workers, would mean that, in the event of a decreased production occurring, it would have to carry not only the entire present overhead, but also additional expenses to be incurred by reason of the employment of women. Although it was not yet known what the output of women would be, the cost department was required to ascertain the lowest point of production which would give a cost not greater than the present cost. The figures in Exhibit 1 indicate a present cost of 41 cents per 100 skins; this figure is divided into the total costs of operating the department with women, and it is found that they must produce at least 45,000 skins in a three months' period if they are to be economical as compared with men. In fact it would be desirable to have a margin of safety in a little higher production than this, since women, being unaccustomed to the work, might spoil more leather and perhaps require more training.

It might result that on some operations the output of women would be very satisfactory, but that on other operations they would turn out considerably less than men. If this should occur, it is to be noted that the deficiency could not be made up by employing more women since there was no room for them. Reduced production in one operation would tend to slow up the entire plant and throw this department out of balance with the rest of the factory; the question might then arise of employing men on those operations for which women were found unsuitable. In that event, it would be necessary to make calculations for each operation similar to those shown above for the department as a whole. The problem illustrates the fact that a saving in labor may be offset by unabsorbed burden arising from a lower rate of production.

Exhibit I

Conversion Costs of 56,000 Skins

Three Months' Period—Men		
Labor: 40 men at $30, 13 weeks		$15,600.00
Overhead:		
Fixed Charges (Depreciation, Taxes, Insurance)		
Buildings, 10% of $20,000 per annum	$ 500.00	
Equipment, 15% of $25,000 per annum	937.50	
Supervision and Inspection	1,700.00	
Heat, Light and Power	700.00	
Other Overhead	3,500.00	7,337.50
Total Cost		$22,937.50
Cost per 100 skins	41 cents	
Three Months' Period—Women		
Labor: 40 women at $20, 13 weeks		$10,400.00
Overhead—As above		7,337.50
Additional Overhead		
Fixed Charges, 10% of $1,000	$ 25.00	
Matron	390.00	
Trucking	325.00	740.00
Total Cost		$18,477.50

Women must produce at least $\frac{\$18{,}477.50}{41 \text{ cents}} = 45{,}000$; if they go below this they are not economical.

The question cannot end with a consideration of costs alone. Even if women showed the same cost per unit as men, a smaller output at this cost would yield a smaller aggregate profit. It would be necessary to have figures for selling prices and for total costs, to be able to compute the exact point where women's labor would become as profitable as men's; but there would have to be a considerable saving in cost before equal profitableness could be shown on a smaller output.

February, 1927 T. H. S.

Meigs Confectionery Company[1]

MANUFACTURER—CANDY

Inspection—*Establishment of Inspection Department.* A candy manufacturing company found that, when the plant worked at capacity, the quantity of defective candy returned increased rapidly. Foremen in charge of candy producing under the factory superintendent, who was responsible to the factory manager, were responsible for the quality of the candy, but were judged chiefly by their ability to maintain production; during heavy sales periods they placed more stress on volume of output than upon quality of the product. In order to avert severe losses through returns of defective candy, which could not be salvaged or reworked, the company decided to create an inspection department under a chief inspector, who would be responsible directly to the factory manager for allowing only goods of standard quality to be shipped, and to restrict the duties and responsibilities of foremen to securing efficient output.

Inspection—*Increase of Factory Overhead by Inspection Department.* In considering the creation of an inspection department to assume the responsibility for quality of product, then held by foremen in charge of production, a candy manufacturing company recognized that it would increase its factory overhead by taking high-class employees from production work to act as inspectors, and that the foremen might regard the plan as preliminary to introducing what would amount to a spy system into the plant. The company decided to establish the department, however, since candy rejected inside the factory could be salvaged and reworked, and high standards of product would be maintained. It was believed, furthermore, that the foremen could be shown that the plan meant the elimination of heavy charges against them for defective goods returned and would allow them to devote their time more completely to the performance of production duties.

The factory manager of the Meigs Confectionery Company found that when the plant was working at capacity the quantity of defective candy returned by customers increased rapidly. In the plant the factory superintendent was responsible to the factory manager for all manufacturing functions. Under the factory superintendent were foremen in charge of the candy producing divisions. These foremen supervised the work of their employees and were responsible for the quality of all candy that went to the packing room.

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[1] Fictitious name.

The foremen were judged chiefly by their ability to maintain production, and during periods when sales were large, they placed more stress on the volume of output than upon the quality of the candy. The factory manager received reports of the quantities of unsatisfactory goods returned by customers, and found it necessary to reprimand the foremen to whose divisions unusually large returns were made. After candy had been manufactured and shipped to consumers, it was an entire loss to the company if it was returned; the materials could not be salvaged or reworked, although full allowances were made to the customers. Losses were of sufficient importance to call for the company's consideration of a plan to reduce shipments of defective goods.

Upon the recommendation of the factory manager, it was decided to create an inspection department under a chief inspector; the latter was to be responsible directly to the factory manager for allowing only those goods to be shipped which were in every way of standard quality. This decision meant that high-class employees who understood the products thoroughly had to be taken from productive work and assigned to inspection duties only. Under this arrangement the duties of the foremen were restricted to securing efficient output. In each division records were to be kept of the quantity of candy which failed to pass the inspectors; these records would provide a check upon the efficiency of the production department. By appointing high-grade inspectors the company was assured that a minimum of defective candy would be shipped, and if returns were made, the inspection department only was chargeable with the loss.

There were several disadvantages to be considered in making this decision. The foremen at first were likely to regard the creation of an inspection department as a step toward introducing a spy system into the plant. The officials of the company had never considered the use of a spy system and did not wish to suggest such a possibility to the foremen. The factory manager was convinced, however, that he could explain the need of the proposed plan to the foremen in such a way that they would realize the ultimate benefits to be secured both by themselves and by the company. From their own point of view, it meant the elimination of heavy charges against them for defective goods returned and allowed them to devote their time and energy more completely to the performance of production duties.

Factory overhead would be increased by the assignment to inspection work of employees who hitherto had been engaged in direct production. On the other hand, when candy was rejected inside the factory, many of the materials could be salvaged and reworked, whereas they were an entire loss after they had been shipped to customers and then returned. The inspection service also provided means of maintaining high standards of product, so that there would be no loss of prestige because of defective candy placed on the market. This condition was a direct benefit to the sales department in meeting competition.

Since the chief inspector was made responsible directly to the factory manager, the inspection department was not likely to be influenced or prejudiced in its work by the efforts of foremen to maintain a large volume of output. Returned goods were a charge against the inspection department, and the volume of such goods was an index of inspection efficiency.

Commentary: The conditions described are typical of the breakdown point of foremen inspection. At capacity the foremen evidently were heavily loaded; the principal pressure upon them was for quantity, and the work involved in maintaining their departments at maximum production, along with the state of mind accompanying the urgent effort to get out the shipments on time, made rigid attention to quality very difficult. Apparently the foremen knew how to maintain quality and did maintain it when they had time to devote to that phase and were under less pressure for volume, but it is hard for the same man to maintain the twofold viewpoint—to exhaust every expedient in responding to pressure for deliveries, and at the same time to maintain standards so rigid as to impede the schedule. This situation is familiar and general.

It may be assumed that manufacturing equipment could not be extended. Probably a natural departmental division determined the number of foremen. Inspectors under the foremen or even under the factory superintendent would have been under this pressure for quantity, transmitted through the foremen, and while they would have helped quality, they would have been likely to incline to leniency in passing questionable shipments. It would appear that the course actually taken was the best one.

Inspection departments are common and their functions and value are well understood in a wide variety of industrial activities; and in this case the return of substantial amounts of candy must have given visual evidence that something must be done to keep quality up to

standard. With a proper introduction, clear definition of duties and relationships, and considerate administration, it may be supposed that any suspicion of spying would soon disappear if indeed it ever appeared. It is natural that a foreman should feel some apprehension and reluctance whenever it is proposed to relieve him of any traditional duty, but at times of overload this feeling is at a minimum.

Obviously, if the inspectors condemned all defective candy—as they should—and if no other change in production methods occurred, shipments would be retarded. This therefore seems to have been an instance where the inspection department had an opportunity to show its value in constructive development of methods for preventing off-grade production. An inspection department in many cases finds its greatest usefulness in forestalling rejections and accepting the control of quality as a function much broader in its implications than the minimum implied by the word "inspection."

As to expense, the function had to be performed, and when production was at capacity it probably could be performed best and at the lowest true net cost by such an inspection department as that decided upon, with the chief inspector responsible to the factory manager. It would be interesting to know whether in times of seasonal low production the same arrangement was continued, or whether the inspectors were returned to production, the chief inspector retained as a quality-control man, and foreman inspection reinstated until the next peak. Such alternations of method might cost more than they would save.

There must be a good reason that is not fully explained why the returned candy was a total loss; it might be supposed that in times of active demand such candy could be sold unbranded at a low price. Possibly the inspection department could do something toward maximizing the salvage value of rejected product, but the data of the case do not give a basis for discussion of this point.

February, 1927 J. G. C.

Ever-Glow Oil Company[1]

REFINERY—PETROLEUM

Waste Product—*Installation of Plant to Reclaim.* An oil refining company had difficulty in disposing of sulphuric acid after it had been used to purify kerosene or gasoline. The used acid was returned to the manufacturers, who, however, because of limited storage facilities, often were unable to accept it immediately. The company decided to install a plant to reconvert the acid into usable condition. It was estimated that a saving of $1,000 a month could be effected by the installation of a unit with a reclaiming capacity of 10 tons a day, costing $30,000, as the company would be independent of acid manufacturers except for 25% of its total requirements, which would be needed to mix with the reclaimed product.

(1923)

The Ever-Glow Oil Company, an independent refinery, in 1923 was having difficulty in the disposition of sulphuric acid after it had been used to purify kerosene or gasoline. The problem became acute whenever the acid manufacturers were unable to accept return shipments of the impregnated acid. Other refineries which experienced the same difficulty had constructed plants to reconvert the acid into usable condition.

The Ever-Glow Oil Company converted annually about 500,000 barrels of Mexican crude petroleum into gasoline, kerosene, and various grades of oil and asphalt. The annual consumption of acid for conversion purposes was 1,800 tons. This acid was bought on contract and shipped in tank cars to the plant, where it was stored until needed.

If gasoline and kerosene were to be marketed as motor and fuel oil, it was essential to treat them with sulphuric acid in order to remove the impurities. A specified quantity of acid was pumped into an agitator filled with either gasoline or kerosene and the two liquids were mixed. The quality and strength of the acid and the length of time required for mixing depended upon the type of oil that was being treated. After the two liquids had been mixed, the acid was allowed to settle and was drawn off into storage tanks. In this condition it was of no value to the company, as it could not be sold; and it could neither be

[1] Fictitious name.

turned into sewers nor emptied into the ocean. In order to dispose of it, the sludge acid was pumped into tank cars and returned without charge, freight prepaid, to the acid manufacturers. There it was atomized in a hot coke fire, and the products of combustion, chiefly sulphur dioxide, were conducted into lead chambers to be regenerated into sulphuric acid. The product reclaimed by this process was not returned to the oil company, because it could not be used for treating petroleum compounds on account of the detrimental effect of the nitrogen it contained. By returning impure sulphuric acid to the chemical manufacturer, the company did not have to maintain a reconverting unit, which was a public nuisance on account of the offensive odors that escaped.

This method of disposal, however, was not entirely satisfactory to the company. Not only was the acid of value when reclaimed, but also the manufacturers frequently were unable to accept the old acid immediately because of limited storage facilities. When there was a shortage of old tank cars, it was necessary to use new ones, which required careful recleaning, an expensive operation, before they could be used again for new acid. Freight shipments were often slow, and by returning the sludge acid to manufacturers, the company did not control any part of its chemical supply as it could have done if it had operated a purifying plant in its refinery. The apparatus could have been managed by the company's chemists and little labor, and that unskilled, would have been required. Operation of such a plant also would have lessened the amount of capital invested in acid, but would have increased the investment in plant equipment.

When the management of the Ever-Glow Oil Company previously had considered the installation of the reclaiming plant, it had decided against the project on account of the offensive odors which escaped from such a plant and because the chemical process did not reconvert the acid into a form usable in the refinery. By 1923, however, a new method of purifying acid had been perfected which consumed the obnoxious gases and left no nitrogen in the reconverted product. The cost of a reclaiming unit of this kind, with a capacity of 10 tons a day, was $30,000; the annual depreciation on such a plant was low; and only a small floor space was required. The total cost of regenerated acid would be approximately $10.75 a ton. With one of these units, the company would be independent of acid manufacturers, except

for 25% of its total requirements; this amount of new acid would be needed to mix with the reclaimed product.

The monthly supply of fresh acid bought by the company cost $2,550; the freight charge of $250 for returning used acid to the manufacturers brought the total monthly cost of the acid up to $2,800. If the waste acid was reclaimed in the Ever-Glow Oil Company's plant, it would cost $1,200 a month; to this would be added the cost of about 38 tons (25% of 150 tons) of new acid, which would be $646, making a total monthly cost of $1,846 for acid. Conservative estimates showed that a saving of $1,000 a month was possible.

The management in 1923 decided to install a unit for reclaiming sulphuric acid. Immediate installation was not possible, since additional production facilities were being added and the company did not desire to undertake other expansion at that time.

COMMENTARY: The new process for purifying sulphuric acid offered the Ever-Glow Oil Company an opportunity to reduce its operating expenses approximately $1,000 a month through a capital expenditure of $30,000. The demand upon the purifying unit, however, would not exceed 135 days of annual duty at capacity production.

It is evident that the purifying plant could be operated at lower unit costs were it to be run at full capacity and that larger units might be operated with even greater economies. Under such circumstances it would be desirable for the Ever-Glow Oil Company to suggest that its suppliers consider the installation of such a reclaiming plant for the serving of their several customers and further to request that its suppliers estimate the price which they would offer for the sludge acid under these conditions. Competitive conditions surrounding the marketing of sulphuric acid might be such as to impress the suppliers with the desirability of offering this service to the Ever-Glow Oil Company on such a basis that a saving of $1,000 a month to the latter company would result without the necessity of an investment in equipment or the added responsibilities involved in the supervision and operation of the acid-purifying process. Failing that, the installation would, on the figures given, be a profitable one for the oil company.

January, 1927 E. H. S.

ONAWAY PAPER COMPANY[1]

MANUFACTURER—PAPER PRODUCTS

FLOW OF WORK—*Control of Congestion in Special-Order Shipping Department.* The special-order shipping department of a company manufacturing paper products was congested because foremen of the various producing departments usually sent in large quantities of finished goods at the end of the morning and the afternoon, causing an uneven flow of work into this department. The company decided to correct this condition by placing the control of deliveries to the shipping department in the hands of the transportation department, which was to follow a schedule prescribed by the research department.

FLOW OF WORK—*Coefficient of Dispersion Selected to Measure.* Congestion in the special-order shipping department of a company manufacturing paper products had been relieved by placing the initiative for deliveries to this department in the hands of the transportation department. The factory manager desired a control measure which would represent the degree of congestion by a single figure; the purpose of this measure was to enable him to judge the relative merits of transportation department schedules and to give warning of changed conditions before they became serious enough to cause customer complaints. The research department fixed a week as the base period, and, of three suggested measures of dispersion or fluctuations of orders, namely, total deviations from the arithmetic mean, total deviations per order, and coefficient of dispersion. selected the last mentioned.

(1924)

The Onaway Paper Company manufactured a wide variety of paper products. Approximately one-half of its total production was for special orders; these included both rush orders and orders for goods which required individual specifications, such as special printing on standard tags. When completed, goods for these special orders were sent on trucks from the various producing departments to a separate special-order shipping department, called Department 21.

Department 21 was overloaded daily with work during the last hour of the morning and during the latter part of the afternoon. The rush periods were especially evident because at other hours of the day Department 21 frequently had no work on hand. The seriousness of the congestion was increased because final packing

[1] Fictitious name.

and shipping of the goods had to await shipping instructions from the planning department. This department was congested similarly because it could not proceed with the shipping instructions and have the billing done until the completed goods had been checked against production orders as received by Department 21, and the production orders had been sent to the planning department to be compared with the original sales orders. The effect of congestion in the planning department was felt by the billing, bookkeeping, and accounting departments.

In July, 1924, the factory manager of the Onaway Paper Company asked the research department to analyze the causes of congestion in Department 21 and to suggest changes in factory routine that would reduce as far as possible the congestion in this department.

The research department found the following information in the daily records of Department 21: (1) the time of arrival of each truck; (2) the number of orders on each truck; (3) the department from which the truck came; and (4) the time at which the shipping orders were received from the planning department. In addition to this statistical information, the research department obtained certain nonstatistical facts relative to the congestion which reflected details of factory routine.

With this information at hand the research department analyzed the fluctuation of orders received by Department 21 during each hour of the working day. The statistical portion of the analysis showed peaks and valleys in deliveries from the producing departments. This indicated that so long as the foremen of these departments controlled the time of sending their own special-order goods to the special-order shipping department, there was no hope of avoiding congestion. This part of the study also distinguished those departments which were responsible for the peaks in delivery of orders at about 11 a.m. and again at about 3 p.m. from those which had peaks in other hours. The facts gathered by the research department in regard to factory routine showed that the peaks at 11 a.m. and 3 p.m. were caused by two factors: (1) the decided tendency for foremen of those departments which made goods of small bulk per order to allow an accumulation of orders in their respective departments until the end of the day; and (2) the last-minute forcing of promised goods and rush orders. The peak deliveries at periods other

than these two were caused by the nature of the goods produced.

On the basis of this analysis, the research department suggested that a smoothing of the flow of orders into Department 21 could be accomplished by taking away from the various foremen of the producing departments the control of deliveries and placing this control with the transportation department. The transportation department would be required to follow a schedule made out by the research department to serve as a guide in making departmental collections of completed goods. The research department drew up such a schedule of calls, constructing it with a view to eliminating the two causes of the peak deliveries. For the goods whose production was ahead of schedule and for the nonpromised goods, the schedule of calls was so arranged that during a given hour there was a balancing of the orders of small bulk, which previously had been allowed to accumulate, with orders of large bulk, which, because of their size, previously had been sent to Department 21 with more or less regularity. For deliveries of promised goods and rush orders, the schedule of calls reserved the last two hours of each afternoon. In order that the producing departments should receive credit for goods actually produced but not accepted for delivery during the last two hours of the afternoon, the schedule provided that they should be called for prior to 10:30 a.m. of the next day; these deliveries were to be credited to production of the previous day.

In order to present periodically a picture of conditions in Department 21 under the new plan, graphs were constructed for each week which showed the number of orders delivered per hour from each department to Department 21 and the total of all orders received by Department 21. These graphs were intended to assist the factory manager in deciding whether the given schedule selected for the transportation department had improved conditions in Department 21.

After a trial of the new plan, the factory manager was of the opinion that general conditions in Department 21 had improved. The charts which showed the hourly fluctuation of orders into Department 21 were so complicated, however, by inevitable fluctuations at irregular intervals that they were almost useless for the purpose of determining changes in conditions. The factory manager asked the research department, therefore, to devise some measure which would express the degree of congestion by a single

figure. This measure would be expected to show the conditions in Department 21 for each period of time selected. The factory manager was interested in such a control measure also because he desired to use it as an index, when experimenting with various schedules of deliveries for the transportation department, to enable him to select that schedule which was most effective. Moreover, the factory manager expected that if a satisfactory control measure were devised, he would be able to improve conditions during periods of seasonal congestion, which were especially bad during the late fall. In effect, he hoped that a control measure not only would enable him to improve present conditions, but also would give him timely warning of congestion caused by a change in the character of production. Consequent congestion thus might be removed by a revised schedule of deliveries in time to prevent receipt of customer complaints.

In devising the control measure, the research department found that the problem was divided naturally into two parts: the period of time for which the measure was to be calculated, and the kind of measure to be used.

Although a day was suggested as the base period for which this numerical measure should be calculated, the research department reasoned that performance in such a short period would be distorted by unavoidable irregularities in production or in transportation. Such expected irregularities would be absorbed in the ordinary course of events within a day or two. A week was adopted, consequently, as the shortest period for which the measure would show cumulative effects of continued fluctuations.

In designing a single control measure, a double object was sought: an index figure which would be sensitive to extreme conditions; and one showing comparative conditions which would indicate whether the situation was improving. Three measures of dispersion or fluctuations of orders were suggested for consideration by the research department: total deviations[2] from the arithmetic mean; total deviations[2] per order; and the coefficient of dispersion.

Total deviations as a measure were considered first. They were a simple measure of the swings away from the arithmetic average and had the decided advantage of being understood

[2] That is, the total of the numerical values of the deviation regardless of whether they were above or below the arithmetic average.

easily. The objection to this measure was that the total deviations would be affected directly by the total number of orders received in a week and by variations in the total number of working hours per week. The factory manager favored this measure because it could be understood readily by the plant foremen; he also believed that it was sufficiently accurate for the desired end.

The total absolute deviations per order were stated as the average per hour of the total deviations of the week divided by the average per hour of the total number of orders received during the week. In this form, the figure for total deviations per order was the first measure suggested, modified by dividing the *average* deviations by the *average* number of orders. The object was to eliminate variations due to the *total* number of orders and the *total* number of working hours per week. Since the average of the deviations per hour and the average number of orders per hour had the same divisor, namely, the number of hours per week, they canceled out, leaving the measure as given. Although this measure eliminated the chief objection to the first measure, it failed to emphasize sufficiently the extreme items. Minor fluctuations of the orders received by Department 21 were to be expected, but it was necessary that any return to old conditions of congestion should be indicated emphatically so that the schedule of deliveries might be changed at once.

The coefficient of dispersion, however, because its calculation involved the squares of the deviations, was particularly sensitive to extreme items. As this function was considered the most important of the conditions which the measure was to satisfy, the coefficient of dispersion was adopted by the research department. It satisfied, in addition, the other condition, that it should show a comparison of congestion, because its value was calculated each week. The coefficient of dispersion was calculated as shown in Exhibit 1.

When the coefficient for any week was plotted, as shown in Exhibit 2, it was possible for the factory manager to compare at once the congestion for this week with that of any previous week. A perfectly uniform flow of work would be represented on the graph by a straight line, which would be the base line and which was the impossible ideal. A downward trend approaching this ideal would indicate an improving condition, while a horizontal

EXHIBIT 1

COMPUTATION OF COEFFICIENT OF DISPERSION FOR ORDERS RECEIVED BY DEPARTMENT 21 OF ONAWAY PAPER COMPANY, WEEK ENDING MAY 24, 1924

Day	Period Ending Hour	Orders Received	Deviations from Period Average		Deviations Squared
Monday	9	22		−13	169
	10	45	+10		100
	11	12		23	529
	12	70	35		1,225
	2	3		32	1,024
	3	29		6	36
	4	13		22	484
	5	99	64		4,096
Tuesday	9	21		14	196
	10	44	9		81
	11	38	3		9
	12	41	6		36
	2	13		22	484
	3	10		25	625
	4	28		7	49
	5	81	46		2,116
Wednesday	9	32		3	9
	10	29		6	36
	11	42	7		49
	12	44	9		81
	2	26		9	81
	3	8		27	729
	4	40	5		25
	5	38	3		9
Thursday	9	24		11	121
	10	41	6		36
	11	23		12	144
	12	52	17		289
	2	26		9	81
	3	17		18	324
	4	28		7	49
	5	43	8		64
Friday	9	26		9	81
	10	14		21	441
	11	12		23	529
	12	84	49		2,401
	2	15		20	400
	3	16		19	361
	4	22		13	169
	5	61	26		676
Saturday	9	36	1		1
	10	33		2	4
	11	39	4		16
	12	84	49		2,401
		1,524	+357	−373	20,866

44 Periods Arithmetic Mean, 34.6 (Approximately, 35)

Standard Deviation $= \sigma = \sqrt{20866 \div 44} = \sqrt{474.2}$

Coefficient of Dispersion $= \frac{\sigma}{M} = \frac{\sqrt{474.2}}{35} = .623$

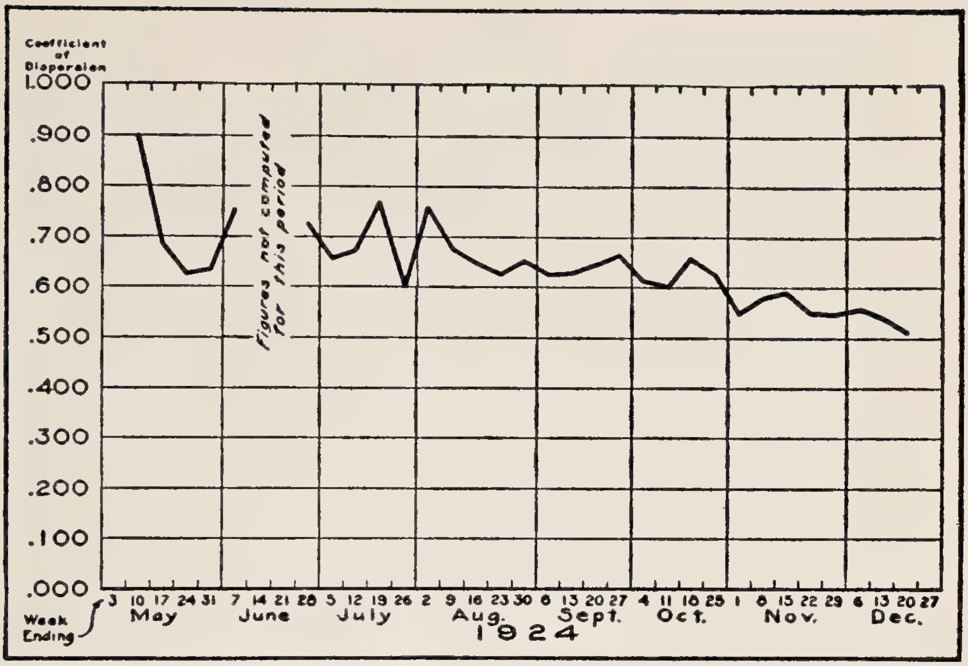

Exhibit 2: Coefficient of dispersion for orders received by Department 21 of Onaway Paper Company, by weeks, May 10 to December 20, 1924.

trend would indicate a stabilized condition. The downward trend shown in Exhibit 2 indicated that experimentation with the schedule of the transportation department had been increasingly effective, even during the seasonal period of extreme congestion in October and November, which in previous years had presented a serious problem. It was not unlikely that in the future seasonal changes in the character of orders might cause a justified temporary rise in the trend of the coefficient. Under these conditions, it would be unnecessary for the factory manager to refer to the detailed graphs showing the number of orders per hour received from each department. On the other hand, if the coefficient of dispersion should rise sharply above a danger point, the factory manager would examine these graphs in order to discover which departments were responsible.

Commentary: This case illustrates the use of statistical analysis in the control of an industrial organization. The problem discussed may be considered in two distinct parts. The congestion in the shipping room, together with the means taken to alleviate it, was distinctly a problem in factory management. The measure of the degree of the congestion was a problem in statistics.

Since the primary cause of the congestion lay in the practice of permitting the foremen to send at will completed orders of goods to the shipping room, the remedy was to be found in a new plan which would control these free-will offerings of goods. As the case points out, the initiative for delivery of goods was taken out of the hands of the individual foreman and placed under the control of the factory manager, who was made responsible for a system of calls according to which the transportation department was to collect finished orders from each of the several departments. So far as the problem in management was concerned, the difficulty of extreme congestion at least was alleviated temporarily when a new plan of calls by the transportation department was put into effect. This method, however, did not tell the factory manager which of a number of possible variations in the details of the calling system would be most effective. Here statistical methods were used to determine the proper answer.

The immediate cause of the factory manager's desire to have a single control number was the fact that the weekly charts of the fluctuations in deliveries of goods to the shipping room were so complicated that it was almost impossible to base an exact opinion on them. Such a control measure would give a prompt comparison of congestion in one week with that of previous weeks. A decision based on the comparison would be reached more easily and could be made more promptly than one based entirely on judgment derived from opinion rather than from objective analysis.

The coefficient of dispersion was selected as the control unit because it was especially sensitive to extreme items. The reason for this was that the coefficient of dispersion was the standard deviation divided by the arithmetic mean. In calculating the standard deviation, the *squares* of the deviations were averaged and the square root of the result found. By squaring the deviations, emphasis was given to extreme items. As a simple example, compare the standard deviations of the two series, 10, 20, and 30; 10, 20, and 100. The standard deviation of the first series is $\sqrt{466.7}$, or 21.60; while the standard deviation of the second, which differs only in the third item, is $\sqrt{3500}$, or 59.16.

Table A shows a numerical comparison of the three suggested units as calculated on the basis of certain days. It will be observed at the end of the table that the three proposed measures are compared by equating column (*a*) to 100. The values of the deviations per order follow fairly closely the values of the coefficient of dispersion. The marked difference is for the second day. This day is one which has a moderate number of orders but which includes one hour with an extremely high number of orders. In comparison with the first sample period, this extreme item in the second sample is more important than

is the extreme item in the first. The coefficient of dispersion shows this at once.

In view of the similarity in results, it is to be questioned whether the deviations per order are not after all just as satisfactory a measure from the practical point of view as the coefficient of dispersion. The

Table A

Comparison of Proposed Measures of Congestion in Department 21 of Onaway Paper Company

(Based on approximate number of orders received per hour by Department 21 on certain days. To reduce calculation, the day, rather than the week, was selected as the base period.)

(a) Tuesday Congestion—1 Working Day (Large Number of Orders)				(b) Friday Congestion—1 Working Day (Moderate Number of Orders)			
Hour	Orders	Absolute Deviations	Deviations	Hour	Orders	Absolute Deviations	Deviations
1	12	28	784	1	15	15	225
2	46	6	36	2	12	18	324
3	61	21	441	3	29	1	1
4	15	25	625	4	20	10	100
5	8	32	1024	5	8	22	484
6	18	22	484	6	15	15	225
7	30	10	100	7	16	14	196
8	130	90	8100	8	125	95	9025
	320	234	11594		240	190	10580
	Mean = 40		Mean = 1449		Mean = 30		Mean = 1322.5
			σ = 38.06				σ = 36.4
			σ/M = .95				σ/M = 1.21

(c) Saturday Congestion—One-half Day (Moderate Number of Orders)				(d) Friday Little Congestion—1 Working Day (Moderate Number of Orders)			
Hour	Orders	Absolute Deviations	Deviations	Hour	Orders	Absolute Deviations	Deviations
1	48	12	144	1	33	3	9
2	7	53	2809	2	16	14	196
3	60	0	0	3	35	5	25
4	125	65	4225	4	44	14	196
				5	11	19	361
				6	25	5	25
				7	28	2	4
				8	48	18	324
	240	130	7178		240	80	1140
	Mean = 60		Mean = 1794.5		Mean = 30		Mean = 142.5
			σ = 42.4				σ = 11.9
			σ/M = .71				σ/M = .40

Summary

	(a)	(b)	(c)	(d)
Total Absolute Deviations	234	190	130	80
Deviations per Order	.73	.79	.54	.33
Coefficient of Dispersion	.95	1.21	.71	.40

If (a) = 100

	(a)	(b)	(c)	(d)
Total Absolute Deviations	100	81	56	34
Deviations per Order	100	108	74	45
Coefficient of Dispersion	100	127	75	42

coefficient of dispersion is more sensitive, but, on the other hand, it is somewhat more difficult to calculate and decidedly more difficult to explain.

The case does not indicate how a predetermined danger point might be set. Because basic conditions in the factory varied, it would be unwise to fix absolutely a certain value of the coefficient of dispersion. If the coefficient, as plotted, showed a downward trend, the factory manager might consider a sharp rise to be a warning. He might know, on the other hand, that, during the week marked by such a sharp increase in the coefficient, there had been an unusually congested condition in the plant. The congestion also might have been caused by breakdowns in machinery, which had forced delivery of orders to the shipping department in certain hours. It might also be likely that during certain seasons of the year the nature of the goods produced would increase the value of the coefficient for a time.

At least this is certain: the factory manager might have used the coefficient of dispersion to determine the most effective plan for the routing of calls on the several departments for completed merchandise. Thus, after assuming a certain plan, the factory manager could have compared its effectiveness with preceding plans by comparing the values of the coefficient of dispersion. By following such a procedure, in the course of a few weeks of experiment he could have determined the most desirable plan of routing completed orders.

It should be noted that the application of the control measure outlined in the case is not limited to the special conditions existing in this particular factory. When it is desired to measure or compare the degree of fluctuation of orders or of production of machines or of sales by salesmen, the coefficient of dispersion may be used. The application of the coefficient of dispersion as a measure or index of congestion was interpreted only in the light of factory conditions. The measure was used as a tool to assist judgment—it was not an end in itself.

July, 1927 T. H. B.

Cleghorn Company[1]

MANUFACTURER

Traffic Control—*Centralization of, in Company Operating Widely Distributed Plants.* A company which operated 35 plants manufactured 21 major products, grouped in 6 divisions, each in charge of a general manager who reported to the president. Each division had its own production and selling organizations; each required the services of a traffic department in connection with receipts of raw materials and shipments of finished products; and each had traffic problems peculiar to itself. Purchasing for all divisions was centralized in the vice-president in charge of purchases, who was on a parity with the general managers in charge of divisions. The company had decided to centralize its traffic department at headquarters and to treat it as a service bureau which could be called upon by any department of any division; the vice-president in charge of purchasing was delegated to represent the traffic department before the president of the company. Within the department, however, the work was divided partly according to divisions and partly according to functions.

(1924)

The Cleghorn Company manufactured 21 major products. These it grouped into 6 divisions, each of which was under the charge of a general manager who reported to the president. The company's total annual sales were in excess of $300,000,000. The company operated 35 plants, most of which were located in the same section of the country. Twenty-three of the plants produced the products in division A; 4 those in division B; 3 those in division C; 1 those in division D; 2 those in division E; and 2 those in division F.

Each of the six divisions required the services of a traffic department in connection with receipts of raw materials and shipments of finished products. Some of the divisions had more need of such a department than had others. Much of the work required of the traffic department was of a routine character, such as the maintenance of a complete tariff file, the checking of extensions on freight bills, and the checking of rates applied. Yet in each division, there constantly arose traffic problems peculiar to that division, for the proper solution of which were needed persons who had executive ability and who were familiar with the

[1] Fictitious name.

products of that division, competing products, markets, and general transportation conditions affecting the division. When the traffic department first was established, the company had been undecided whether to centralize it or to decentralize it.

Each division of the company was almost independent of every other division in that each had its own production organization and its own selling organization. The products which the company manufactured were widely diversified and practically necessitated decentralized production and selling. In the interest of economy and efficiency, however, the purchasing for all divisions was centralized in the office of the vice-president in charge of purchases, whose position in the organization was on a parity with that of the general managers in charge of the divisions.

If a separate traffic department were maintained for each division, the men employed in each department would need to be familiar with all the various phases of the department's activities. In a centralized traffic department, each phase could be performed by specialists in that phase. One person would not be required to perform a variety of functions. Furthermore, much duplication of effort would be eliminated. It was possible, however, that the men employed in a centralized traffic department would not be sufficiently familiar with the traffic problems peculiar to each division.

The company had decided to centralize the traffic department at headquarters, and to treat it as a service bureau which could be called upon by any department of any division of the entire company. The complete organization of the traffic department was developed gradually as the activities of the company expanded. Because the purchasing department was the only other department which was centralized, the vice-president in charge of purchasing was delegated to represent the traffic department before the president of the company.

In 1924 the set-up of the traffic department was as follows:

At the head of the department there was a director, who acted in a supervisory capacity and who corresponded to the director of the purchasing department. Immediately under the director was a traffic manager, who came into more intimate contact with the work of the department. There were four assistant traffic managers. One was an office manager in charge of all the detailed routine work of the department. Of the other three assis-

tant traffic managers, one was directly in charge of the more important traffic matters pertaining to divisions A and F; one was in charge of the traffic problems of division B; and one was in charge of those of divisions C, D, and E. These three assistant traffic managers were familiar with the special conditions in the divisions to which they were assigned and were capable of making decisions on matters of policy.

The assistant traffic manager in charge of divisions A and F also had charge of all cases to which the company was a party that were brought before the Interstate Commerce Commission. He was put in charge of this work principally because the volume of traffic in his divisions was greater than that in any other division and, consequently, was productive of more cases which were referred to the commission.

The traffic department activities which were in charge of the office manager were divided among 10 sections, as follows:

1. The steamship division attended to all the details of chartering vessels and engaging space for incoming and outgoing shipments which moved to or from foreign ports.

2. The insurance bureau made the necessary arrangements for marine insurance and also for insurance of goods which were stored at any point in transit.

3. The rate room was under the supervision of a chief rate clerk who functioned through the other assistant traffic managers. The work of the rate room was divided on a territorial basis among a number of clerks. Each clerk attended to shipments originating in his territory, regardless of their destinations, and was responsible for checking the rates, for "having rates maintained on a proper level," for routing the shipments in and out, and for doing the detailed work involved in plant location studies. There were six "desks" in the rate room: one for New England and Trunk Line territory; one for southern territory; one for Central Freight Association territory; one for western territory; one for express and parcel post; and one for intercoastal water transportation. Responsibility for "having rates maintained on a proper level" meant that the rate clerks, when checking rates, were to report to the office manager any inconsistencies in rates or any rates which appeared to be unduly high.

4. The tariff record room kept a complete file of all tariffs

issued in the United States except those for the Pacific Coast territory. The company had little or no use for a tariff of local rates in that territory.

5. The bill of lading room kept copies of all bills of lading on the company's shipments and checked the extensions of rates. It also compiled figures showing the tonnage distribution of the company's shipments among the various railroads and steamship lines used, and kept a record of the quantity of the company's products purchased by each railroad and steamship line, in order that the company might distribute its traffic among the transportation companies in proportion to their purchases from the company.

6. The claims department recorded and filed claims for loss, damage, or delay to shipments and for overcharges.

7. The tank car department kept records of tank cars which the company leased to other companies and which it leased from other companies. The records showed mileage accrued and statistics pertaining to the movement of the tank cars, both those carrying the company's products and those leased to other companies.

8. The tracing department followed the movements of freight from or to any of the company's plants, and undertook to expedite shipments when necessary. In special cases and during periods of embargoes and congestion, men from the tracing department accompanied shipments in an effort to speed them up.

9. The car distribution department arranged with the various railroads for cars to be placed at the company's plants for loading, and kept a record of demurrage charges and payments.

10. The stenographic and filing department functioned for the entire traffic department.

Commentary: The traffic department as a separate unit in industrial enterprises is comparatively new. The majority of industrial traffic managers were appointed since the passage of the Hepburn and Mann-Elkins amendments to the Act to Regulate Commerce. These amendments (enacted in 1906 and 1910, respectively) gave the Interstate Commerce Commission greater power over rates, including the power to suspend tariffs on complaint of a shipper or on the commission's own initiative. With the greater opportunity for shippers to have a voice in the determination of rates, rules, and service, came recognition of the desirability of having the work entrusted to spe-

cialists who could deal on equal terms of expertness with railroad traffic officers and conduct negotiations with governmental regulating authorities.

The industrial traffic manager is now a part of nearly all industrial organizations, but there is very little uniformity in his place in such organizations. The form of organization is constantly changing with a tendency to give greater recognition to traffic. In some cases he is subordinate to the production manager; in other cases he reports to the sales manager; in yet another group he is on the staff of the purchasing agent or treasurer, or he may report to the general manager. In a very few cases he is on a plane with department heads and responsible only to the president or the chief executive of the company.

The importance of the traffic manager and his place in the organization depend mainly on the importance of transportation rates and service to the industrial enterprise and on the caliber of the traffic manager. In the case of the Cleghorn Company, freight rates and service were highly important, both on raw materials and on finished products. The problems connected with traffic and traffic department organization in this case were unusually complex because of the widely distributed plants and the diversity of product. The magnitude of operations is indicated by the annual gross sales of over $300,000,000 from the products of 35 plants.

The organization in this case was one which grew out of the peculiar development and needs of the company. It can hardly serve as a model for others, as there are very few companies of the same character. The centralization of the traffic function, without loss of specialization for the special needs of the individual plants, appears to have been wise, as was also the assignment of one assistant traffic manager to handle as a specialist for all divisions the matters taken before the Interstate Commerce Commission. The choice of the vice-president in charge of purchases as the executive to whom the director of traffic was responsible was apparently dictated by the peculiar circumstance that the only major function which had been centralized for all the 35 plants was that of purchasing. It was logical, therefore, to attach the new centralized function of traffic management to the one purchasing executive, although the action appears to have had a note of expediency as well as of logic.

January, 1927 W. J. C.

Trayton Company[1]

MANUFACTURER—COTTON GOODS

Purchasing—*Awarding Contracts to Suppliers.* A company manufacturing cotton goods required about 2,500,000 pounds of caustic soda annually for the operation of its bleaching and dyeing plant. It was the policy of the company each year to make contracts with at least two suppliers of caustic soda, dividing actual purchases equally between them, in order to maintain the goodwill of more than one manufacturer, to secure competition for orders, and to protect the company in case of fires or strikes in the plant of either supplier. Early in 1924, because the company's plant was operating at 60% of capacity and because general business conditions seemed to point to a dull season in the textile industry, the company awarded a single contract for the year, to the lowest bidder.

(1924)

The Trayton Company, which manufactured cotton goods, operated a bleaching and dyeing plant in Rhode Island. About 2,500,000 pounds of caustic soda were required annually to mercerize and bleach its products. For four years prior to 1923, contracts had been made with suppliers of caustic soda in October of each year, to go into effect on January 1 of the next year. In these contracts the supplier guaranteed to fill any orders which the Trayton Company might place, up to a certain quantity, at a definite price. During this period the Karmac Paper Company[1] and the Tyson Company[1] had been awarded the contracts each year. Purchases had been divided about equally between them. On November 1, 1923, the purchasing agent of the Trayton Company secured quotations from several sources of supply. Because of the depressed condition of the textile industry, he was uncertain whether to award contracts to more than one supplier, and with what company or companies such contracts should be arranged.

The price of caustic soda varied in direct proportion to the percentage of sodium oxide content. Two methods were used in quoting prices on caustic soda; one was the New York and Liverpool standard and the other was the actual standard. The difference between the two bases was due to a change in the table of atomic weights; caustic soda containing 76% of sodium oxide

[1] Fictitious name.

by the New York and Liverpool standard actually contained 74% of sodium oxide.

The Tyson Company was a standard brand manufacturer, of which there were six in the United States. This group included only those companies which did not manufacture caustic soda as a by-product and whose products each of the companies recognized as comparable in quality. The prices of the six standard brand manufacturers always were identical, and each of them agreed with purchasers to meet reductions in price by any other standard brand manufacturer. All the standard brand manufacturers were located at least 200 miles from the plant of the Trayton Company. The Tyson Company, which was the farthest away, was located 400 miles from the Trayton Company. The Karmac Paper Company, which manufactured caustic soda as a by-product, was located in New England, only 100 miles distant from the Trayton Company.

On November 1, 1923, all the standard brand manufacturers of caustic soda quoted a price of $3.38 per 100 pounds delivered. The Karmac Paper Company quoted $3.21 per 100 pounds delivered. Bids were not requested from two other paper manufacturing companies in New England which operated plants for the manufacture of caustic soda, because the total output of each was estimated at approximately 25% of the Trayton Company's annual requirements. Both of these companies and the Karmac Paper Company manufactured caustic soda by the electrolytic process, while the standard brand manufacturers used either the Solvay or the Le Blanc process. Manufacturers who used the electrolytic process were unable to manufacture caustic soda to meet the 76% actual standard. Inasmuch as caustic soda with a 76% content of sodium oxide by the New York and Liverpool standard satisfied the Trayton Company's requirements, however, quotations from both the standard and nonstandard brand manufacturers were secured on 76% caustic soda, New York and Liverpool standard.

Each of the standard brand manufacturers had a capacity production sufficient to warrant awarding the total contract to any one of them. The Karmac Paper Company had an estimated maximum production of 15,000,000 pounds per year and an estimated actual production of 10,000,000 pounds per year. The purchasing agent of the Trayton Company was unable to obtain

information on the quantity of caustic soda used by the Karmac Paper Company in its own mills.

Since caustic soda was a by-product of the Karmac Paper Company, its quoted prices usually had been less than those of the standard brand manufacturers prior to 1924. Of the standard brand manufacturers the Tyson Company would receive preference because of the established relationship. Although the Tyson Company and the Karmac Paper Company had been required to deliver caustic soda with an actual content of only 74%, the average content during the three years prior to 1923 had been about 75%. Caustic soda was shipped in galvanized iron drums. The drums furnished by the Tyson Company were of slightly higher quality than those furnished by the Karmac Paper Company. This fact, however, was not a sufficient reason to favor the Tyson Company unless other conditions were equal.

The Trayton Company ordinarily maintained stocks of caustic soda sufficient to fill its requirements for one month. During the winter, stocks were increased to two months' supply, to avoid shortages resulting from delays in shipping. Orders for biweekly shipments of one or two carloads were placed for periods of four or five weeks. Each carload contained about 80,000 pounds. The Karmac Paper Company was able to furnish delivery within two days, while the Tyson Company, because of greater distance, required one week. In other forms of service the two companies were equal.

In November, 1923, the mills of the Trayton Company were operating at only 60% capacity, while officials of the company informed the purchasing agent that other mills were operating at even lower percentages. General business conditions seemed to indicate a dull season in the textile industry for at least the first half of 1924. Because of this situation, the purchasing agent delayed awarding contracts, with the hope of securing a reduction in price on caustic soda. While waiting for the Tyson Company to reduce its price below $3.38 per 100 pounds, he procured the company's current requirements from a small New England manufacturer, through a selling agent, at $3.12 per 100 pounds. In January, 1924, the Tyson Company, in order not to lose the contract for that year, reduced its price to $3.12 per 100 pounds.

In previous years the purchasing agent always had awarded at least two contracts, dividing actual purchases equally between

the two companies. The purpose of this practice was not only to maintain the goodwill of more than one manufacturer and to secure competition for orders, but to protect the company in case of fire or strikes in either of the suppliers' plants. Caustic soda was an essential supply, without which the company could not operate. Although indications pointed to a dull season in textiles during the first half of 1924, it was impossible to forecast the demand for the second half year. It was practically impossible to purchase caustic soda on the spot market in full carload quantities.

In February, 1924, in spite of the risk involved, the purchasing agent of the Trayton Company decided to award only one contract for 1924. This was given to the Tyson Company on account of its lower quoted price; the Trayton Company agreed that its requirements from that source would not exceed 2,000,000 pounds. Actual purchases in 1924 from the Tyson Company amounted to only 60% of requirements. The other 40% was purchased, through local selling agents, from New England plants which manufactured caustic soda as a by-product; the prices of these plants were slightly less than $3.12 per 100 pounds.

Commentary: The decision to award only one contract for the 1924 requirements of caustic soda appears to have been justifiable under the existing conditions. In view of the close relationship which, it may be inferred from the case, existed between the standard brand manufacturers, the Trayton Company reasonably could expect that one or more of those producers would take over the Tyson Company's contract in the event of manufacturing difficulties at the latter's plant. A contract without definite agreement as to amount purchased was another condition favorable to the decision.

Before making a contract with the Tyson Company, the Trayton Company would have done well to learn whether the paper industry usually entered a period of depressed business conditions somewhat later than the textile industry. Such information would have afforded the Trayton Company a basis for deciding whether or not it could place greater dependence upon the paper manufacturers for a part of its requirements than ordinarily would be possible in other industries.

In the award of contract to one source of supply, the fact that the Tyson Company, a standard brand manufacturer, was able to meet the lower price made it the logical source with which to contract. Past relationships were maintained. As a source of supplies, the Tyson Com-

pany was preferable to the companies manufacturing caustic soda as a by-product only.

The presence of conditions particularly favorable to the situation would not allow too great emphasis to be placed upon the decision as a precedent in determining future purchasing policy.

May, 1926 H. H. T.

Rubberwebb Manufacturing Company[1]

MANUFACTURER—RUBBER PRODUCTS

Purchasing—*Control of, in Manufacturing Company.* Purchases of rubber, cotton, and coal by a company manufacturing rubber belting, garden hose, and other rubber products, were partly for production purposes and partly speculative; as to the latter, the company either bought and sold contracts, or contracted for future delivery and resold materials upon receipt. Purchases had been in charge of the treasurer of the company, but, upon a reorganization, a new purchasing agent proposed that the purchasing department should function under the merchandise manager, who had the position usually called general manager, instead of under the treasurer.

(1923)

In June, 1923, a new purchasing agent was appointed by the president of the Rubberwebb Manufacturing Company, which produced rubber belting, garden hose, floor coverings, and other rubber merchandise. The company was in the process of reorganization, and the new purchasing agent believed that he could manage the purchasing department in such a way that it would function under the merchandise manager, instead of under the treasurer as in the past.

At that time, the organization chart of the company was as shown in Exhibit 1.

The merchandise manager had the position usually called general manager. He was in charge of the plant, which was located in Jersey City, and also of the sales office and sales personnel at the general offices in New York. His responsibilities included the supervision of production and the determination of the policies pertaining thereto, such as the lines to be manufactured and the volume of output. He also directed distribution, which included advertising. The storeroom was under his control at the Jersey City plant. The treasurer had charge of finances, collections, and payments; of the clerical force at the New York office; and of purchasing, both of office supplies and of raw materials and supplies for production. Prior to June, 1923, purchases had been made by the comptroller, who also had charge of the general office, with the exception of the sales personnel.

[1] Fictitious name.

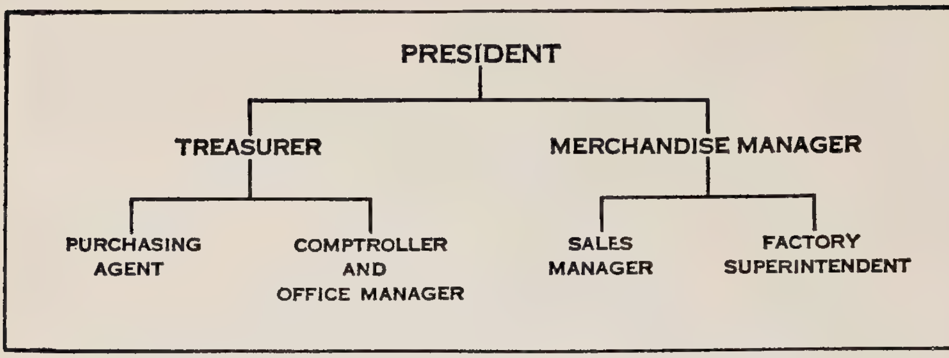

Exhibit 1: Organization chart of Rubberwebb Manufacturing Company, January, 1923.

Annual purchases of materials consisted of $450,000 of rubber, $300,000 of duck, 2,000 tons of coal, and miscellaneous items, making a total of $1,200,000 each year. Approximately 15% of all sales were for delivery on contract for a year, and the company bought on contract the materials required to fill these orders. The new purchasing agent received from his predecessor several contracts for six months' supply of materials of different kinds. He had to dispose of many materials and contracts at a loss, because the manufacture of the goods for which the materials were intended had been discontinued. The output was seasonal for different lines.

In the summer and fall of 1923, important manufacturers who had refrained from making customary purchases of rubber for a protracted period might at any time reenter the market. If they did so, prices would be raised. The Stevenson Act of the British Parliament, which limited the quantity of rubber produced and guaranteed prices to plantation owners, had meant valorization of plantation rubber. The price of rubber was influenced both by international market and political conditions and by such comparatively unimportant factors as the failure of a rubber distributor in Singapore. Rubber offered, therefore, an opportunity for speculation.

The company had taken advantage of this situation in the past and had made speculative purchases of rubber either by buying and selling contracts, or by contracting for future delivery and reselling materials upon receipt. This policy usually applied only to qualities of rubber that might be used in production, but occasionally, when prices were unusually low, qualities which could not be used by the company were purchased for resale.

Just prior to the appointment of the new purchasing agent, such a purchase of rubber had been made. Prices had dropped rapidly after the purchase; the material was sold, therefore, at a decided loss.

Cotton also presented the possibility of speculation. In 1923 it offered an opportunity either for speculation or for routine purchasing on the basis of lower price. The policy of the Rubberwebb Manufacturing Company had been to buy a year's supply of cotton in the bale and to have it spun, woven, and finished as required.

The new purchasing agent found that the treasurer's office did not have adequate records of past production, a suitable means of comparing them with current production records, or a satisfactory perpetual inventory. He therefore drew up a perpetual inventory system for the storeroom and charted previous sales, purchases, and production, for his use in placing current orders. He also determined a minimum for each material; when the quantity in stock reached that point, a purchase of the commodity was made. These minimums were based on plant experience and on current knowledge of the time required for deliveries. Estimates made by the management as to the minimum quantities required were modified by the judgment of the purchasing agent. He also arranged that all customers' orders be reviewed by him before being sent to the factory.

The new purchasing agent previously had had executive experience in production. In his opinion, there should be a continuous flow of materials into the storeroom from the sources of supply, in order that there might be an uninterrupted flow of materials from the storeroom to the production department. He believed the purchasing agent should be responsible for maintaining an adequate supply of satisfactory materials purchased at the lowest prices obtainable, including interest charges on material inventory.

In 1923 the market in other lines than cotton and rubber was a buyer's market; routine purchasing was advisable. After a few months the purchasing agent had learned where to make the most advantageous purchases by comparison of prices, quality of materials, and frequency and promptness of delivery. His current knowledge of these factors in purchasing and his previous experience in production, he believed, made him the logical au-

thority on where and what to purchase and how much to pay. The remaining factors of when and how much to buy, the purchasing agent believed should be subject to question or control by either the treasurer or the merchandise manager of the company.

The treasurer could not be expected to follow routine production and operating statistics. He knew financial conditions, however, and had to plan his financial policy to meet commitments for materials bought. Under the company's speculation policy, the treasurer's knowledge of financial requirements made him best able to determine when to speculate and to what extent.

The merchandise manager, on the other hand, could not be expected to follow financial conditions so closely as did the treasurer. Primarily the merchandise manager had control of production rather than of speculation. However, he had to provide and supervise warehousing facilities for materials. He, moreover, decided such questions of policy as the addition or discontinuance of lines, and thereby controlled quality and volume of materials. He was interested mainly in keeping stocks in the warehouse low, and, although the perpetual inventory installed by the purchasing agent made possible supervision by the treasury department, the storerooms from which withdrawals were made were in Jersey City under the direction of the merchandise manager.

The new purchasing agent believed that purchasing should be controlled by the merchandise manager. He, therefore, through current conferences and his ability to justify his policies, arranged that the purchasing department should function under the latter officer.

It was possible, however, that other officials of the company would refuse to recognize the new organization of the purchasing department.

COMMENTARY: An analysis of the operating conditions and the organization structure of the Rubberwebb Manufacturing Company indicates that the purchasing agent's decision to place the purchasing department under the control of the merchandise manager was sound. With greater knowledge of the situation, however, the limitations imposed by the capacities and desires of the available personnel might well lead to other decisions equally justifiable.

A distinction between the manufacture of rubber merchandise for sale, a prime function of the business, and the speculative purchasing of rubber for resale was significant in the reorganization. The latter was properly an investment activity and might be disregarded in the plan of operating organization.

Two phases of purchasing were involved. Rubber, duck, and, to a certain degree, coal, are materials of sufficiently wide price fluctuations to make speculative purchasing, which takes advantage of market conditions, necessary if manufacturing losses are to be avoided. The procurement of other materials and supplies constitutes what is known as routine purchasing.

Speculative purchasing requires a knowledge of market conditions and price trends, and also of the financial position of the company. While the treasurer is the source of knowledge with respect to the financial condition of the company, it does not necessarily follow that speculative purchasing would require the purchasing department to be placed under his control. The impulse to buy, or the determination of when and how much to buy, originates in the purchasing department, and the function of the treasurer is in the nature of a check rather than a spur to speculation. Constant supervision of purchasing activities by the treasurer is unnecessary.

Routine purchasing involves a close working relationship between the production and purchasing departments in the determination of what, when, and how much to buy. An intimate knowledge of production methods and policies enables the purchasing agent to buy more wisely. This is particularly true when the quality of the material is not readily reduced to written specifications, and opportunities for substitution are present. With adequate production and inventory records, however, information as to when and how much to buy is readily available, regardless of the status of the purchasing agent in the organization.

While the foregoing analysis points toward the desirability of placing the purchasing agent of this company under the merchandise manager, the decision would rest upon the personalities involved. The purchasing department could function, it is believed, about as effectively were it under the control of the treasurer, the merchandise manager, or the president. The volume of purchases, the speculative risk, and the fact that losses had resulted in the past from the placing of unfavorable contracts may be mentioned as justifying direct responsibility to the president.

Two aspects of the problem, less closely related to the determination of status, appear worthy of comment. The opinion of the new purchasing agent with respect to the purchasing function would indicate a

greater emphasis upon the routine of purchasing than might be advisable for the type of manufacture carried on. The wisdom of delegating to the new purchasing agent the responsibility of determining his own status also may be questioned.

February, 1927 H. H. T.

CYRUS & COMPANY[1]

MANUFACTURER—RUBBER PRODUCTS

HIRING—*Displacement of Foremen by College Graduates.* A company which manufactured rubber products, employing 340 non-union workmen and 12 foremen, installed a centralized production control system and set standards for the quality and quantity of output. The foremen, who had entered the company's employ as operators, were of middle age or of advanced years; they had become fixed in their ideas and methods and controlled their departments largely in accordance with their own ideas. When operations were being standardized, the company found difficulty in obtaining the support of the foremen, who disliked the new system, under which their duties were less executive and more clerical. The company decided, therefore, to employ young college graduates in its laboratory to study the new system; in three years they were to displace the foremen previously employed, in the expectation that they would cooperate fully in the new program.

HIRING—*Method of Displacing Foremen by College Graduates.* A company manufacturing rubber products installed a centralized production control system and set standards for the quality and quantity of output. In order to obtain better cooperation in the operation of the new system, the company planned to displace its 12 foremen, all of whom had previously been operators in the factory and were of middle age or of advanced years, by young college graduates. To check possible objections by employees to being supervised by men who never had served as operators, the company decided to prevent the employees from realizing the exact nature of the change by introducing the new system gradually and by making no statement of the policy of training none but college men for foremen's positions, either to men already employed or to those who applied for positions.

DISCHARGE—*Displacement of Foremen by College Graduates.* A company which manufactured rubber products had decided to replace its 12 foremen, all of whom were of middle age or of advanced years and had served previously as operators, by young college graduates, whose cooperation in the standardization of operations, it was believed, would be greater than was shown by the foremen then employed. The company had no positions to offer the foremen which would give them the compensation then received, and if they were retained in the employ of the company they probably would arouse dissatisfaction among the employees. The company decided, therefore, to discharge them, but only one at a time, at infrequent intervals, in order to minimize the likelihood of ill feeling.

(1923)

[1] Fictitious name.

In 1923, Cyrus & Company decided to install a centralized production control system and to set standards for the quality and quantity of output. At the same time, the company decided to train only college graduates for positions as foremen. When steps were taken to introduce this plan into the factory, the company had to determine whether employees and applicants for jobs should be informed of the new policy, and whether the men then employed as foremen, none of whom were college graduates, should be discharged.

Cyrus & Company had entered the rubber industry in 1890. The company manufactured rubber heels, adhesive and friction tapes, sundry rubber goods, and rubber-proofed fabrics. In 1920 the company had established a laboratory for experimentation with production methods and standards. From 1920 to 1923, seven college graduates had been employed in the laboratory. Five of them had been discharged because they were incapable or failed to display interest in their work, one had left to accept another position, and one had remained with the company and was a satisfactory employee.

In 1923 the company had 340 non-union workmen and 12 foremen. The foremen had not attended college. They had entered the company's employ as operators. After promotion, they controlled their departments very largely in accordance with their own ideas, subject to the approval of the superintendent and the factory manager. The foremen's principal tasks were to direct and instruct the employees under their supervision and to set the time in which the various operations should be performed. They also inspected the finished products and determined the routing of materials through their departments. The foremen were of middle age or of advanced years, had become fixed in their ideas and methods, and disliked clerical duties. They often failed to fill out completely the required forms and reports.

The company planned to employ additional college graduates in the laboratory to study the new system of control. They were to be instructed in the methods used in each department, and after three years were to displace the foremen previously employed. The latter were being paid $50 a week. At first, college men employed in the laboratory would receive approximately $25 a week. This wage was to be increased to $35 and then to $40

in the course of three years. At the end of that time, these men were to be made foremen and paid from \$40 to \$45 a week. After two years, this salary was to be increased to \$50 or \$55. Men who showed unusual ability were to be advanced to better positions, while the others were to remain departmental foremen.

The plan of control which the company was putting into effect provided that standard methods and standard times be established for the performance of each operation. The foremen were to supervise the workers, check actual production with the established standards, and record orders and the operations performed. When operations were being standardized, the company found difficulty in obtaining the support of the foremen. They disliked the new system, under which their duties were less executive and more clerical. The company expected that if young college graduates were employed as foremen, they would cooperate fully in the program of centralized control and standardization. However, although the factory manager believed that employees respected education, he realized that they might object to being under the supervision of men who never had served as operators.

One of the executives pointed out that if the company explained to its employees that it intended to displace the existing foremen with college graduates, the employees would realize that they no longer had an opportunity to become foremen. Highly skilled operators, he said, might be dissuaded from entering the company's employ, and operators already employed might seek positions with other companies.

The factory manager did not believe that these arguments were sound. Few employees had an opportunity to become foremen in any event. Moreover, if any of the workers proved to have exceptional ability, it still was possible to train them in the laboratory.

In order that the employees might not realize the exact nature of the change, the company decided to introduce the new system gradually, and to make no statement of the policy of training none but college men for foremen's positions either to the men already employed or to those who applied for positions.

The company did not wish to discharge the foremen. They were valuable employees, who had been with the company for at least five years. If they were retained, however, difficulty in establishing the plan of control was unavoidable. The company

had no positions to offer the foremen which would give them the compensation they received as foremen. Jobs were available in the factory, but the weekly wages for them were $30 or less. The factory manager was of the opinion that two or three of the older foremen might accept such positions and not create discontent in the working force. He did not believe this to be true of the other foremen. He was convinced that if they were retained in the employ of the company they would arouse dissatisfaction among the other employees.

The company decided to discharge the foremen one at a time, at infrequent intervals, in order to minimize the likelihood of ill feeling. The factory manager was convinced that the workmen's regard for education would make them understand that the college graduates who replaced the discharged foremen were better equipped for the position than were those men. He regretted the necessity of the step, but believed that no other policy would be satisfactory.

Commentary: The striking feature of this case is the naïve faith of the company in "college graduates," especially in view of its previous experience. That all the college men accepted for training would become superior to the best of the experienced foremen is doubtful, particularly if we consider the possible moral effects of partial replacements on the remaining foremen.

A part of the company's present difficulty was due to its past policy of promotion, which was as extreme in one direction as the new policy was in the other. The previous policy rested on the fallacious assumption that the best workmen make the best foremen. It failed to recognize the alternative inducement of higher wages even to a total greater than that paid to foremen.[2] The demoralizing effects of demotion can largely be obviated by temporary, experimental promotions.

Although this analysis could have guided the company in its future policies, it would not have helped the company out of its existing predicament. However the situation had come about, clearly those incapable foremen who were unwilling to become operators at a relatively high wage would have to be discharged. The company owed enough to faithful service, however, to reduce the number of discharges

[2] See Redmond Company, 4 H.B.R. 253, for a case in which at least a temporary higher wage rate was justifiable. See also Tareyton Milling Company, 1 H.B.R. 207, commentary, 2 H.B.R. 454, and Tioga Steel Corporation, 4 H.B.R. 56, for cases in which the failure to make similar wage accommodations seriously interfered with the efficient operation of a plant.

to a minimum; not all the foremen should have been penalized for the company's mistakes.

There was no occasion for making a general announcement of the new policy to the workmen. The force of circumstances would undoubtedly modify the policy anyway, and the operators could draw their own conclusions as the practical developments of the policy became manifest.

October, 1927 C. F. T.

Aston Company[1]

MANUFACTURER—POWER MACHINERY

Purchasing—*Reciprocity between Manufacturer and Customer.* The purchasing policy of a company manufacturing power machinery and equipment was to accept the lowest bid when equally satisfactory quality and service were offered by several bidders. When several bids were alike as to all three factors, the company gave preference to its customers. On a purchase of coal, the company received from a customer a bid slightly higher than that of the lowest bidder, who was not a customer. The company decided, as a matter of sales policy, to accept the customer's bid and to take similar action in other cases when it appeared financially advisable. It was estimated that this policy of "reciprocity in trade" would affect 10% of the annual purchases.

(1919)

The Aston Company manufactured power machinery and equipment. The company distributed its products throughout the United States, and had annual sales of approximately $38,000,000. Each year the company made nearly 4,000 purchases of materials, valued at about $13,000,000. In considering bids which it received, the company stressed price, quality, and service. More than 2,000 vendors were included in the company's list. Among these firms were many which used the products of the Aston Company. When equally satisfactory quality and service were offered by several vendors, the company accepted the lowest bid. When several bids were received alike as to all three factors, the company gave preference to users of its machinery.

In the spring of 1919, on a purchase of coal the company received a bid from one of its customers, Storyton Brothers.[1] The price offered by this firm was slightly higher than the price offered by the lowest bidder, a firm which was not a customer of the Aston Company. Both these firms submitting bids were able to furnish satisfactory service and quality.

A representative of the sales department of the Aston Company believed that the company should accept the offer of Storyton Brothers. He pointed out that Storyton Brothers had bought

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[1] Fictitious name.

machinery from the Aston Company for many years and stated that it was desirable sales policy to accept the customer's bid, even though a lower price had been offered, since to do so would encourage Storyton Brothers to continue purchasing from the company.

The purchasing agent replied that although acceptance of Storyton Brothers' bid might be good sales policy, the function of his department was to obtain the necessary materials at the lowest prices consistent with satisfactory service and quality. It was inadvisable, he said, to charge the manufacturing department at other than the lowest prices obtainable.

The representative of the sales department suggested that the difference in cost between the lowest bid and that of Storyton Brothers should be regarded as a selling expense to be absorbed by the sales department. When asked whether he desired the company to develop a policy of "reciprocity in trade" and to have his department absorb all such extra costs, he replied that he believed such a policy was sound and ultimately would benefit the company if applied conservatively.

The purchasing agent contended that if the company made a practice of accepting other than the lowest satisfactory bid, manufacturers who had no occasion, or infrequent occasion, to buy Aston products would refuse to bid, believing that no matter how low their prices were they would be unlikely to obtain contracts. He remarked that if this policy of giving preference to customers could be expected to increase the company's sales to existing customers, it also could be expected to close channels through which new customers might be attracted. Competitors of the Aston Company, furthermore, might regard the policy as a subterfuge by which the company was able to give rebates to customers. The extra cost, even though absorbed by the selling department, eventually would have to be distributed to the products, together with all other selling expense. Either a reduction in net profits or an increase in prices would have to follow the adoption of the policy.

The representative of the sales department agreed that the policy, if adopted, should be applied with moderation. Since the practice of the Aston Company was to charge all finished products to the sales department at manufacturing cost, all profits were shown in the accounts of the sales department. That de-

partment, therefore, was in a position to judge whether sales to a customer had been sufficiently profitable to warrant the acceptance of his bid in case it was not the lowest.

The Aston Company decided to accept the bid of Storyton Brothers, and to take similar action in other cases when it appeared financially advisable. The company estimated that this policy would affect 10% of its annual purchases.

COMMENTARY: The chief consideration in a purchasing policy is the securing of a dependable supply. A small price disadvantage should not weigh against this,[2] although a considerable differential, as, for example, in the deceptive form of "purchasing from customers," might jeopardize a company's prosperity.[3] The "slightly higher" price of Storyton Brothers would seem to be of the former type, especially if a considerable percentage of profitable sales were involved.

The suggestion of the sales manager, that his department assume the difference in price as selling expense, was misleading and should not have been followed. Simplicity, a basic consideration in accounting, would warrant charging the whole cost to the purchasing department. This method would indicate to the purchasing agent the need of integrating his policies with those of the company as a whole. Furthermore, his interest in keeping down the costs of his department could be relied upon to raise an alarm whenever the price differential assumed a relatively dangerous size.

October, 1927 C. F. T.

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[2] See Albertson Company, 3 H.B.R. 382.

[3] See Herkimer Steel Company, 3 H.B.R. 360.

Cook Collar Company[1]

MANUFACTURER—COLLARS

Sales Unit—*Increasing Sales Volume by Packing Merchandise in Groups of Three.* A company manufacturing semi-soft collars, which retailed at 35 cents each or 3 for $1, packed them in boxes of one dozen. In order to increase sales, the company decided to pack its collars in cardboard packets containing three collars each. Although the company realized that retailers, if they were forced to break many packets to satisfy customers who wanted fewer than three collars, might become dissatisfied and refuse to order from the company, it believed that the new method of packing would induce consumers to increase the amount of their purchases.

(1924)

Early in 1924, the Cook Collar Company believed that it might be able to increase sales of the four styles of semi-soft collars which it manufactured by packing them in cardboard packets containing three collars each. In addition to the semi-soft collars, the company manufactured a variety of shirts and stiff collars. It sold the collars directly to retailers through eight sales branches, which carried complete stocks. Both the stiff and the semi-soft collars were packed in boxes of one dozen. Each semi-soft collar was enclosed in an unsealed paper envelope. The minimum order which the company accepted from retailers was for one dozen collars. The retail selling price of the semi-soft collars was 35 cents each or three for $1.

The cardboard packet which the company contemplated using for the semi-soft collars was 10¼ inches long, 3 inches wide, and ½ inch thick, and had a sliding tray which could be pushed out from the cover when the collars were to be removed. The packet was sealed by a paper tab, pasted over one end, on which was printed the brand name and the size of the collars contained. Orange, green, and black colors were used in the printing on the packet, and a picture of the collar with its brand name was shown on the top. The space occupied by four packets was 60% of that required by the pasteboard box containing one dozen collars. The paper envelope formerly used for each collar would be discontinued if the proposed packet were adopted.

[1] Fictitious name.

One of the principal merits of the packet was its usefulness in the display cabinets with which the company supplied the retailers. The company had devised these cabinets in order to increase the sale of semi-soft collars. The cabinets, which were placed on the top of retailers' counters, allowed display of the four styles in glass cases and provided space for stocks of the collars. In this way, Cook collars were brought to the attention of customers, and the retailers' supplies were conveniently placed. The reduction in space allowed by the proposed packets would make it possible for retailers to keep complete stocks of all sizes and styles of the collars in the cabinets. The company believed this provision essential to the success of the cabinet scheme.

It was likely that the adoption of the proposed plan of packing would increase sales. If three collars were contained in one package, consumers would be more likely to take advantage of the saving in price which could be obtained by the purchase of three than they were when each was wrapped separately. The company believed that a customer often bought only one collar when he needed several and that if a customer had several new collars on hand, he would discard the old ones more readily than he would otherwise. If a purchaser refused the packet and insisted on securing a single collar, the retailer could break the package and enclose the collar in an envelope. A supply of envelopes was to be kept in the cabinet.

Under the proposed method of packing, the company could supply retailers, if necessary, with the various sizes and styles of collars in quantities of three instead of only in packages of twelve. Since retailers did not always require a dozen collars in each size, the proposed plan would enable many of them to reduce their inventories and still stock a complete assortment; this, of course, would result in higher rates of stock-turn. The packet, furthermore, had an advertising value, serving to bring the name of the company and the brand of the collar to the attention of the purchaser. The company's name and the brand did not appear on the envelopes which were in use. The convenience of the packet and the cleanliness of the collars sealed in it could be featured in the company's advertising.

The company made no estimate of the increase in percentage of sales expense which was likely to result from the adoption of the plan. Since retailers could place orders for one-quarter dozen

instead of one dozen, the amount of the average order was likely to decrease, while the total expense for delivery, billing, and charging would remain the same. The company did not know how large a proportion of consumers usually purchased three collars at a time. Efforts of retailers to induce customers to purchase three collars instead of one might lead to antagonism toward the brand and to diversion of patronage to other brands not packed in that way. If a majority of buyers insisted on purchasing a single collar, the retailers' stocks would be disorganized because of the number of broken packets. This might arouse the dissatisfaction of retailers and lead them to discontinue buying Cook collars. The company believed that this possibility was the principal risk involved in the adoption of the plan.

If the proposed change should be put into effect, initial extra cost for equipment and labor would be incurred. The company expected, however, that after the new method had been in operation a short time, the total cost for packing would be approximately equal to the existing costs. The difference in the prices of materials required for the two methods of packing was slight; the pasteboard box in which a dozen collars were packed required more manufacturing processes than did a cardboard carton for three collars. The Cook Collar Company decided to adopt the proposed change in the method of packing semi-soft collars.

Commentary: The decision of the Cook Collar Company to adopt the proposed change in the method of packing semi-soft collars is to be fully commended only provided that the buying habits of purchasers were such as to call for purchase in groups of three, or that their buying habits could be changed with reasonable effort to conform with that requirement. On the assumption that this was the case, there were undoubtedly important economies, both for the retailer and for the manufacturer, to be obtained by this method of packing. As a general principle, the lots of goods sold to consumers should be small enough not to overload them, but still large enough to keep to a minimum the number of transactions required to supply consumers' wants. If a packet of three induced purchase in lots of three, when otherwise three purchases of one each would be customary, the increased cost of the packet would be more than offset by the decrease in the cost of selling. In so far as particular stores were able to sell more collars on this account, the Cook Collar Company would benefit because retailers' purchases would be larger.

On the other hand, if consumers were not accustomed and could not be induced generally to purchase collars in lots of three, it might become necessary to break the majority of packages of three, and the benefit to the retailer would therefore tend to disappear. Moreover, in so far as danger of soiling was increased because collars were not wrapped separately, ill will might be developed. The objection that retailers might purchase only a quarter of a dozen instead of a dozen at a time is not important if purchases by consumers in lots of three could be brought about with reasonable effort. In its initial stages the plan should be considered tentative, attention being devoted to determining whether or not the expectation that customers could be induced to buy three collars at a time could be realized. From the point of view of display, the new plan possessed certain advantages of importance, because the new package could be given greater attractiveness than the old, and the facility with which it could be used in the display case was a factor which would offset, in part at least, the reluctance of some buyers to purchase a larger quantity.

February, 1927 H. R. T.

Bellvanise Company[1]

DEPARTMENT STORE

Sales Promotion—*Discontinuance of Store-wide Sales.* A department store conducted several store-wide sales events each year for the purpose of maintaining a large volume of sales. A so-called M.M. sale, at which only specially purchased job lot merchandise was offered, was held monthly; an anniversary sale and a birthday sale were held once each year; two stock-taking sales were held annually; and in a majority of the departments weekly sales were held. In 1923 the executives of the store found that the volume of merchandise sold during the M.M. sales in 1922 had been 50% less than in previous years and that the store had sustained a loss of $50,000 on these sales. The executives decided to discontinue all store-wide sales except the two stock-taking sales and one annual sale, called the Merchandise Managers' Boost Day, in which an attempt would be made to secure the largest volume of sales for the year.

(1923)

The department store of the Bellvanise Company occupied a corner location in the shopping district of an eastern city. Approximately 80% of its sales, which amounted to $10,000,000 annually, were made on a cash basis; trading stamps were given on all purchases. The style merchandise sold by the Bellvanise Company consisted primarily of goods that were in the later stages of the style cycle.

In March, 1923, after investigating the expenses and profits during 1922 for a monthly store-wide sales event, known as the M.M.[2] sale, that had been featured by the Bellvanise Company for a period of years, executives of the company considered the advisability of discontinuing such sales. The M.M. sale had been held on the middle Wednesday of every month, except January and July, for so long a period that many executives looked upon it as an institution. Its value was brought into question, however, as the result of a decline in the sales made. Instead of the usual increase of $10,000 over the normal daily sales of $30,000, the extra volume secured from these sales events in 1922 averaged but $5,000.

[1] Fictitious name.

[2] Manufacturers' Mistakes.

Practically all the merchandise offered at the M.M. sales was specially purchased job lot merchandise; the regular merchandise in the store was not marked down for these sales. As contrasted with a regular mark-up of 35%, the maximum that a buyer was allowed to place on job lot merchandise purchased for an M.M. sale was 20%. A substantial proportion of the merchandise was sold at mark-ups ranging from 10% to 16%. For example, a piece of merchandise which the store bought for $1 for an M.M. sale would be sold at $1.11 or $1.19 rather than at the usual price of $1.55. The wages of extra salespeople for this event approximated 2% of the sales made, and additional advertising amounted to 3% of the sales. Premiums paid to salespeople as an incentive for increasing volume amounted to 0.5% of sales. Returns of merchandise by customers commonly increased, as a result of an M.M. sale, from a normal of 3.5% to 5%. From 70% to 80% of the merchandise placed on sale usually was sold; the remainder was marked up after the sale, to conform to the nearest price lines in the regular stocks of merchandise.

The executives of the Bellvanise Company found that the loss on the M.M. sales for 1922 was $50,000. A record was kept of the merchandise placed on sale, and, by taking an inventory after the sale, the cost of the merchandise sold was determined. The gross margin was obtained by deducting the cost of merchandise sold from total net sales, and the net profit or loss was determined by deducting from the gross margin all the expenses incurred for the sale. The decline in the patronage of these sales was attributed to the inability of the buyers to procure, at suitable prices, a sufficient number of special lots of merchandise. Manufacturers apparently had estimated the demand of retailers more accurately since 1920, with the result that special lots of such desirable merchandise as formerly had accumulated through overproduction were becoming more difficult to procure.

In addition to the M.M. sales, an anniversary sale, which commemorated the founding of the store, was held for one week during March of each year. A birthday sale in the fall and a stocktaking sale in January and July of each year also were held in all departments. The merchandise placed on sale for those events was from the regular stocks, and a mark-up of 20% was used, instead of the normal mark-up of 35%. In addition, a sale considered as store-wide was held for 75% to 80% of the depart-

ments every week. As for the stock-taking, birthday, and anniversary sales, no special merchandise was purchased, and the same mark-up was used as in the case of those sales. No extra salespeople were hired for any of these events, but extra advertising amounted to 0.5% of the sales made. An increase of from $2,000 to $3,000 over the normal daily sales volume was obtained on the day of the weekly sale. Since no investigation had been made of any of these sales, other than the M.M. sale, it was not known whether or not they were profitable.

Store-wide special sales were regarded by the buyers of the Bellvanise Company as necessary to the maintenance of a large volume of sales. The buyers, as well as some of the store executives, favored the retention of the existing policy of holding store-wide sales, because the growth of the store in the past was attributed to that policy. They were of the opinion that, although the mark-up on merchandise sold during a sale was low, the large volume compensated for the low margin, and, furthermore, that many of the people attracted to a special sales event came again to purchase the regular merchandise.

The executives of the Bellvanise Company decided, however, to discontinue all but three store-wide sales. One of these was to be known as the Merchandise Managers' Boost Day, in which an attempt would be made to secure the largest volume of sales for the year. Two stock-taking sales were to be held in January and July, as in the past. Sales might still be held on occasion by the individual departments, but not in more than one or two departments at a time.

In 1923, instead of a decrease, sales showed a normal increase. In comparison with a normal sales volume of $30,000, the total of $185,000 was reached on the Merchandise Managers' Boost Day. As a result of the increased mark-up secured on the merchandise sold, the store made a larger percentage of net profit than in 1922.

COMMENTARY: So-called special sales events in department stores may be classified into store-wide sales events, in which all departments are simultaneously concerned, and special departmental sales events, in which only one or a few departments participate at any one time. Special sales events further may be classified into those for which most or all of the merchandise is especially purchased for the par-

ticular occasion and those for which merchandise already in stock is reduced in price. All these types of special sales events commonly involve special advertising.

So-called stock-taking sales are in common occurrence in all stores, usually being held at the conclusion of each of the six months' seasons. The primary purpose of these sales is to clean out stocks preparatory for the new season. Consequently, most of the merchandise sold on these occasions is from the store's regular stocks, newly purchased merchandise being introduced into these stock-taking sales only to whatever extent is necessary to fill in broken lines and generally to "sweeten up" the stock. The problem of the Bellvanise Company concerned primarily store-wide sales events featuring merchandise especially bought for the occasion. The desirability of the semiannual stock-taking or clearance sales was not in question.

In favor of special store-wide sales events, such as those featured by the Bellvanise Company, the following arguments commonly are advanced:

1. These events increase total volume of net sales.
2. The bargain appeal is a necessary competitive weapon for department stores.
3. Customers may be led to purchase merchandise other than that offered at the special sales event.
4. The store's normal overhead expenses are covered by its normal day-to-day volume of sales; consequently, increased volume secured from special store-wide sales events results in additional profit which would not otherwise be secured.

On the other hand, the following arguments commonly are advanced against such sales events:

1. The mark-up ordinarily is lower than the average cost of doing business in percentage of sales.
2. Additional expense is incurred for extra salespeople and special advertising.
3. The ratio of returns is increased.
4. There is almost always some merchandise left over from these sales which has to be sold eventually at greatly reduced prices, thus increasing the ratio of mark-downs and retarding the rate of stock-turn.
5. These sales are attended by congestion and confusion, which cause more errors and mistakes throughout the store.
6. Store-wide sales events attract only transient trade.
7. Through continued use, these special sales events lose the effectiveness of their appeal.
8. These events lead to a policy of "trading down."

The experience of the Bellvanise Company bears out the argument

that special store-wide sales events eventually lose the effectiveness of their appeal and also the arguments that these events involve additional expenses and cause an increased ratio of returns.

The argument in favor of special store-wide sales events on the score of the desirability of increased sales volume depends in part, at least, on the assumption that expense ratios decline as sales volume increases. This result, however, does not necessarily follow. In fact, data that have been collected on the operating expenses of department stores indicate that the reverse may be more nearly true.[3] For instance, in an address delivered before the fifth annual convention of the Controllers' Congress of the National Retail Dry Goods Association in June, 1924, Dr. Melvin T. Copeland spoke in part as follows:

> As a matter of fact, what happens as the volume of sales increases? In the first place, a substantial increase in the volume of sales requires more floor space. . . . . In the second place, an increase in the volume of sales ordinarily necessitates the employment of a larger sales force. . . . . In the third place, as the volume of sales increases, the executives usually receive greater remuneration in recognition of their capability of handling a larger organization. . . . . For a large organization, in the fourth place, the methods of control become more elaborate. This is indicated by the figures on expenses for office salaries and for receiving, marking, and stockroom salaries. In the fifth place, as the volume of sales increases, the quantity of stock carried also increases, even though not quite in the same proportion. The investment in merchandise increases as the volume of sales increases, but at a slightly lower rate. For the larger volume of stocks, the insurance and other carrying charges are higher in dollars and cents and slightly less in percentage of sales for some of these items. The effect of the requirements for more floor space, more sales people, more highly paid executives, more elaborate systems of control, and the carrying of heavy stocks, is to increase the expenses in dollars and cents, as the volume increases, so that the percentage of expense to sales remains at least practically constant. In order to attract a larger volume of business, more money is spent for advertising in the stores with a large volume of sales. For department stores with sales of less than $250,000 in 1922, for example, the advertising expense was 1.7% of the sales; for firms with sales of $10,000,000 and over, it was 3.2% of the sales. In addition to the employment of heavier advertising to increase the volume of sales, services also are added, including such incidentals as manicure parlors and rest rooms. Credit is extended more liberally, with greater losses from bad debts in dollars and cents and at least as high a ratio to sales as when sales were smaller.

[3] See Bureau of Business Research, Harvard University, Bulletins No. 37, 44, 53, and 57.

> Delivery expenses also increase at least as fast as the volume of sales increases. For the reasons just stated, it seems to me logical to expect that the ratio of total expense to sales should at least remain constant as the volume increases, and it is not at all surprising that the ratio is somewhat higher with the larger volume of sales because of the necessity for more elaborate, complicated systems of control. The amount of supervision that can be exercised by a single individual is limited by human factors, and consequently more elaborate organization and heavier overhead expense tend to follow an increase in volume of sales, after a certain point is reached.

In another part of his address Dr. Copeland said:

> In drawing these conclusions, it is not my intention to damn an increase in volume of sales; not by any means. Natural growth is healthy and it should be profitable. I do question seriously, however, the wisdom of the employment of extraordinary methods to force an increase in volume of sales, merely for the sake of volume.

It may be concluded, therefore, that the weight of the evidence at the present time is against the extensive use of the special store-wide sales event as a means of sales promotion and that the Bellvanise Company followed a sound policy in reducing the number of such sales events.

April, 1927 M.P.M.

Barrington Motor Car Company[1]

WHOLESALE AND RETAIL DISTRIBUTOR—AUTOMOBILES

Advertising—*Selection of Potential Purchasers to Circularize.* From a study of the state registration records, a company distributing a high-priced automobile discovered that, of the persons who had purchased cars from its five closest competitors during the previous year, 63% never had been circularized by the company. The majority of these purchasers did not live in the best residential sections of the city. Consequently, the company decided to change its policy of concentrating its direct mail advertising upon people of wealth and social position, and to circularize persons of moderate incomes and the owners of cars in the next price range below that of the automobile distributed by the company.

(1925)

The Barrington Motor Car Company, located in a city of approximately 500,000 inhabitants, was a distributor for the Durvan motor car, the models of which ranged in price from approximately $3,000 to $5,000. A study which the company made in the early part of 1925 of the sales of competitors in 1924 indicated that it was failing to circularize many persons who were potential purchasers of Durvan motor cars.

The company employed six retail salesmen to solicit orders within the city and the neighboring districts. These salesmen made on an average seven personal calls per day. The company controlled by contract nine dealers who solicited orders in seven surrounding counties. It paid salesmen 4% commission on the factory prices of the cars and a few special bonuses. During 1924, the company sold 224 new cars at retail and 273 new cars at wholesale; it took 154 used cars in trade.

The Barrington Motor Car Company advertised in local newspapers and theater programs, distributed printed matter from the showroom and at the annual automobile show, and circularized by mail about 6,000 actual or potential owners. The company secured names of persons to be circularized through salesmen, through visits of prospective purchasers to the salesroom, as a result of previous direct mail advertising, from the state motor vehicle registration lists, and from a list of names compiled by

[1] Fictitious name.

a publishing company. From the registration lists the company took the names of owners of competing makes of cars which sold for from $3,000 to $5,000. The publishing company's list, which contained about 3,000 names, included names taken from social registers, from membership lists of exclusive clubs, and from municipal tax records. From the latter source were taken only the names of persons owning tangible property valued at $50,000 or more. The company's circular advertising consisted of from 10 to 12 letters a year. The total cost of this advertising was approximately $6,000. Most of the advertising copy was prepared by the manufacturer. The cuts for newspapers, theater programs, and matter distributed from the showroom or at the automobile show were given to the distributor free of charge. The circular letters were sold to the distributor at cost. The total cost of the company's advertising was approximately 1% of total sales.

In the five years preceding 1925, the company had made 25% of its average annual sales in the first quarter of the year, 40% in the second, 10% in the third, and 25% in the fourth. The company had distributed its advertising expenses throughout the year in about these same proportions; during the first quarter, when the automobile show was held, more than the specified portion was spent.

Early in 1925, the sales manager of the Barrington Motor Car Company made a study of the sales made in 1924 by the company's five closest competitors. These competitors sold cars ranging in price from $2,500 to $6,000. The sales manager's study was based on information obtained from the state registration records. Of the total number of persons who had purchased cars from the company's five competitors, 63.4% never had been circularized by the company; 9.8% had been circularized but not interviewed; 14.4% had been interviewed but had expressed decided preferences for the cars they ultimately had purchased; 7.5% had insisted on larger allowances for their used cars than the company had been willing to grant; and 4.9%, the sales manager believed, had failed to purchase Durvan cars because of inadequate follow-up. In an investigation to determine why the company had failed to circularize so many of these purchasers, the sales manager found that the majority of them did not live in the best residential sections of the city.

An analysis of the company's 1924 sales showed that 68% of the purchasers formerly had owned Durvan motor cars, and that the company had procured 50% of the names of the other purchasers as the result of their visits to the salesroom floor, 7% as the result of direct mail advertising, 9% from the local automobile show, and 34% through the initiative of salesmen, the cooperation of owners, and miscellaneous sources.

In view of the fact that the company had not circularized 63.4% of the persons who in 1924 had purchased cars of its five strongest competitors and that a large proportion of those purchasers lived in the less prosperous sections of the city, the company decided to change the sources from which it obtained names for direct mail advertising. The company decided not to use the list compiled by the publishing company, because it was evident that the names of many potential purchasers were not to be found in social registers, among the membership of exclusive clubs, or in lists of persons owning property of large value. The company decided to add to its remaining list of persons to be circularized the names of persons having incomes of $10,000 per year or over, as shown by the Federal income tax records, and the names of owners of cars selling for from $2,000 to $3,000, the price class immediately below that of the Durvan car. The company intended to add from time to time names of potential purchasers procured from other sources.

Commentary: The directness of appeal of direct mail advertising and the flexibility of direct mail as a medium are advantages realized by firms only if there is definite information as to the group of prospects which is to be reached by advertising. In this particular case, the assumption that purchasers of Durvan motor cars were only those owning tangible property or appearing in various exclusive lists was disproved by facts which had been available to the company over a period of years, though not used. A simple solution of the problem was that of directing the direct mail advertising to persons in other groups who had been shown to be sufficiently important prospects. The decision to circularize persons with actual incomes of $10,000 or over was certainly wise, but by no means sufficient as a basis for a campaign which was to be complete. The decision to circularize persons owning cars immediately below the Durvan car in price seems to have been merely another step in the right direction.

February, 1927 H. R. T.

General Motors Export Company

SUBSIDIARY SALES COMPANY—AUTOMOBILES

Advertising—*Allowance to Distributors.* From 1919 to 1925, a subsidiary sales company selling automobiles had left all local advertising to its foreign distributors, at the same time making an allowance of $5 a car to distributors for use in such advertising. The advertising department of the company furnished many added helps to distributors in the way of instruction books, posters, catalogs, house organs, favors and gifts, electros, and so forth. Because of its belief that the $5 allowance no longer was warranted and because to have the entire financial burden of local advertising assumed by the distributors would fit in with its plans for the development of advertising helps, the company decided to withdraw the allowance, although, in view of its intention to make a reduction of $5 a car in the prices of cars to distributors, such withdrawal would not result in a reduction in the company's expenses.

(1925)

In 1919, when the General Motors Export Company first had begun to develop sales in foreign countries, the advertising of American automobiles abroad had been such an untried undertaking that the company had been of the opinion that the advertising should be left entirely to local distributors. The company, however, had offered an advertising allowance of $5 per automobile to distributors, with the understanding that the distributors were to devote an equal amount of their own money to advertising the products. The company had made this offer in order to encourage the distributors to advertise, and in order to be in a position to require them to do so.

In 1925 the company still was offering the $5 advertising allowance to its foreign distributors and still was of the opinion that the local advertising should be left in their hands. At that time, however, the company was assisting its distributors with their advertising in many ways other than by the advertising allowance and thought that it might be advisable to discontinue that allowance.

The General Motors Export Company was a subsidiary corporation organized to export the products of the manufacturers controlled by the General Motors Corporation. These products included Cadillac, Buick, Oakland, Oldsmobile, and Chevrolet

automobiles and G.M.C. trucks. The offices of the company were in New York City. Total sales of the company during 1924 had approximated $50,000,000.

The General Motors Export Company had five grades of representation in foreign countries, the type of representation employed in any territory depending upon the sales development and potentialities of that territory. As a territory developed, the company planned gradually to change the grade of representation existing there to the grade employed in territories of similar development. Officials of the company served as regional supervisors. Thus, the merchandising of the company's products in Continental Europe was supervised by one of the directors of the company who maintained residence in Europe and traveled from one distributing point to another. All branch offices were incorporated in the territories which they served, and the exact title and organization of each depended upon local laws and requirements.

At five important points where it had branch offices the company maintained assembling plants: London, Copenhagen, Antwerp, São Paulo, and Buenos Aires. At these points stocks of automobiles were maintained, assembled from parts shipped from the United States. The organization at these branch offices included sales, engineering, and service departments. These branches acted as distributors, marketing the cars to the dealers in the territories. None of the company's other branches performed the function of distributor, this being left to local distributors appointed by the company.

The company's branch organization in Australia did not include an assembling plant, but, by special contract with a local manufacturer, automobile bodies were made locally and placed on chassis shipped from the United States.

At a few other leading distributing centers, such as Berlin, the company maintained branches at which automobiles were stocked but at which no assembling was done. To such ports, automobiles already assembled were shipped from the United States.

At less important centers, such as Singapore and Calcutta, the company maintained branch offices which included in their functions neither assembling nor warehousing. The company shipped automobiles direct to the distributors which it had appointed in these territories. The branch offices acted as field representatives

of the company, supervised the activities of the distributors appointed by the company, aided the distributors and dealers in merchandising, and in general looked after the interests of the company.

Territories in which the sales possibilities did not justify the maintenance of branch offices, such as the west coast of South America, were served by traveling representatives of the company. These representatives went from place to place, supervising the distribution and assisting the distributors and dealers with the merchandising of the automobiles.

Except in the territories served by the five branches which included distribution among their activities, the company appointed distributors, who marketed the cars through local dealers. The distributors usually were wholesale importers, and the dealers were retail sellers of motor cars. In some small territories, Java, for instance, the distributors also were dealers, often the only dealers selling the automobiles.

Because the various makes of automobiles and the trucks sold by the company differed widely in appeal, the company usually appointed a different distributor for each make. Because of local peculiarities, some of the makes were not sold at all in certain territories. In any event, the company chose its distributors with great care, often after special field investigation by officials of the company supplementary to the reports of the field representatives. The company made changes from time to time as it appeared that existing distributors were unsatisfactory or that more satisfactory ones were available.

Since the factories of the producing companies were located at various inland points in the United States, export prices were quoted f.o.b. factory and the discounts allowed to distributors were taken from such quotations. Export price sheets, however, showed freight charges to New York and any other export charges, such as boxing, so that the distributors could work out easily the price f.o.b. New York. The company's terms varied with distributors. The company did not require its distributors to contract to take a specified number of automobiles during a year, but the field representatives kept a careful check upon distributors to insure that they realized the full possibilities of their markets. These representatives prepared and kept up to date market analyses showing the sales potentialities of the different

territories. Distributors were allowed the option of financing their shipments direct with the company or of making arrangements through the General Motors Acceptance Corporation, which was expanding its foreign activities and maintained several offices abroad, chiefly in Europe.

The company maintained an advertising department in its New York office. In order to assist the distributors, the department prepared, or assisted with the preparation of, the following classes of material:

Instruction books. The department prepared a book for each make of car. The books were loose-leaf, the pages of glazed paper and the covers of leather. Each book contained specimen sales talks, hints and suggestions for sales campaigns, and a detailed analysis of the car, emphasizing the selling points. Advertising methods were discussed and suggestions given, with reproductions of advertising matter that had been used in various countries.

Posters. The department prepared a variety of posters in colors for each car. Usually these posters were 30 inches by 30 inches and contained no lettering except the name of the car. They were supplied to distributors, upon requisition, in any quantity desired.

Catalogs. The department supplied catalogs, fully illustrated and printed on glazed paper, to distributors.

Pamphlets and leaflets. The department prepared quantities of pamphlets and leaflets, illustrating different models and special features deemed worthy of emphasis. These were sent to all distributors and were available in several languages.

Instructions for direct-mail work. Twice a year the advertising department sent to all distributors scrap books containing samples of illustrated material which it had prepared for use in direct-mail advertising. The broadsides and folders were prepared in quantities, and the department was prepared to supply them to distributors as desired. The distributors themselves, however, were expected to prepare the letters and similar material to accompany such direct-mail appeals.

Electros. The company stocked electros which it was prepared to furnish to distributors. These electros usually were

reproductions of the different makes and models of automobiles. Some showed local scenes, however, as in the case of a series of electros showing the trip of a Buick motor car around the world. The company supplied the electros to distributors without charge.

Favors and gifts. The advertising department arranged for the preparation of such articles as specially embossed leather cushions, pens, pencils, and so forth, and offered them to distributors at cost for presentation to customers.

House organs. The company published two house organs. One of these, called *The Distributor,* appeared quarterly and was designed particularly for circulation among distributors. It contained illustrative material from all parts of the world and articles contributed by the company's own representatives and by the distributors. One section of *The Distributor* was devoted to reviews of recent books on American business. The company offered to supply the books reviewed to distributors at cost. That the distributors were interested in American business methods was shown by the numerous orders which the company received for the books.

Proofs. The department sent to all distributors proofs of all the domestic advertising of the General Motors Corporation and of the factories manufacturing the automobiles.

Institutional advertisements. The company inserted advertisements, usually of one page, in automobile trade papers in many countries. Such advertising was purely for the purpose of developing prestige and goodwill, and all the advertisements appeared in the name of the company and did not stress particular automobiles. The domestic advertising agents of the General Motors Corporation placed this advertising through a New York export advertising agency. The agency recommended publications, attended to all space commitments, and settled all bills. Copy was prepared by the advertising department of the company, but the export agency prepared all translations. Except for this institutional advertising in trade papers, the company itself did not advertise in foreign magazines or newspapers. Such advertising it left to the distributors, believing they were best situated to control the advertising intelligently.

In 1925 the company was firmly convinced of the wisdom of

putting the burden of local advertising upon the distributors. The question at issue was whether the company should continue to offer distributors an advertising allowance of $5 a car.

In 1919 this allowance had been practically the only assistance the company had given its distributors with their advertising. As sales had increased, the company's advertising department had grown until, in 1925, it was helping the distributors in the many ways previously enumerated. In view of this development, the company concluded that the advertising allowance no longer was needed and that the money could be applied in some other way to better advantage.

The company, if it withdrew the advertising allowance, intended to make a reduction of $5 per car in the prices of the cars to distributors. Furthermore, the company had in mind added features for the program of direct-mail advertising which it planned for its distributors; these features would be initiated only after the withdrawal of the allowance. From the company's point of view, therefore, the withdrawal of the allowance was simply the removal of an unjustified grant which could be used to better advantage in another way, and would not result in a reduction in the company's expenses.

It was doubtful whether all the distributors would understand this point of view. Many would feel that the company was trying to impose added expense on them. It was possible that, with the allowance withdrawn, they would reduce the amount spent for advertising.

The company decided to withdraw the allowance. This decision was based in part on the belief that the allowance no longer was warranted, but largely on the conviction that to have the entire financial burden of local advertising assumed by the distributors would fit in with the company's plans for the development of advertising helps. The company wrote to the distributors to this effect in January, 1925, and again in March of that year. A final letter, notifying distributors that the allowance would be discontinued as of June 30, 1925, was sent out early in June. Most of the large distributors were satisfied with the company's action. Many of the small distributors objected, seeing only that they were about to lose an advertising allowance which previously had been granted them. Some distributors even continued to send in vouchers for the allowance after June 30.

One by one, however, the distributors appeared to understand the real reasons for the change in policy, and the company did not anticipate continued difficulty. On September 1, 1925, it was too early to determine the effect of the discontinuance of the allowance on the volume and quality of the advertising undertaken by the distributors. The company was of the opinion, however, that they would continue to advertise just as whole-heartedly as in the past.

Commentary: The issue involved in the case, relating to the discontinuance of the advertising allowance, is not an uncommon one in the relationships of exporters of American goods to foreign agents. It is the observation of the writer that more and more such advertising allowances in cash are being discontinued, and that for such allowances are being substituted increased advertising and other assistance to dealers in reselling products of the manufacturer. To many it is a surprising fact that not only the fundamental principles of advertising but even American adaptations of those principles in the development of dealer helps and reselling helps have been applicable to foreign countries.

The American export organization engaged in selling a particular product is frequently in a better position to furnish effective selling ideas and plans to the dealer in the foreign country than is the dealer himself. The export advertising department of a company, with the cooperation of local distributors, should be able to avoid most of the elementary mistakes in presenting its products to foreign peoples. Furthermore, since the advertising department is in a position to help dealers effectively, there is no further justification for an allowance inaugurated under conditions which no longer prevail. The growing popularity of the automobile and the constantly improved position of the General Motors Corporation, coupled with the increased value of agency franchises, all rendered the allowance of $5 unnecessary, if it was regarded as a concession.

All too frequently, moreover, the dealer seems to regard the advertising allowance as a misnomer for a reduction in price. If the dealer is unusually progressive, he is willing to spend the advertising allowance and more in advertising effort, but if not, he considers that the advertising allowance amounts to extra profit which he is to add to the net margin. Even the General Motors Export Company seems to have admitted this viewpoint concerning the advertising allowance in making its reduction of $5 per car in the price of cars. There could, therefore, be no particular objection on the part of distributors to a discontinuance of the advertising allowance when the distributors received both

a reduction in the price and an increased amount of advertising co-operation on the part of the export company. Although this reduction in selling price might be temporary, and eventually the dealer might forget that he had received a "quid pro quo" in the form of price reduction, once the policy of no allowance had been introduced and accepted, no serious difficulty should have been encountered in continuing it. The discontinuance of the allowance involved a considerable saving of time, and elimination of many opportunities for friction with distributors. And, as stated, it transferred responsibility for local advertising to dealers, a responsibility which would likely be met if agencies were valuable and the wishes of the General Motors Export Company were clear to the distributor.

As a whole, it seems that the export company's decision was sound. Nevertheless, it is obviously possible under certain conditions to grant an advertising allowance to foreign distributors with such restrictions that abuses may be largely avoided.

October, 1927 H. R. T.

H. R. Cunliffe & Company[1]

DEPARTMENT STORE

Demand Creation—*Adoption of Private Brand Policy by Department Store.* It was proposed that a company should use one or more private brands in its department store, placing its sales emphasis on private-brand merchandise rather than on nationally advertised merchandise. This plan, it was stated, might enable the company to improve its competitive position, to increase its gross margin, and to escape the dictation of manufacturers. It was recognized, however, that additional advertising and selling expense might be incurred.

Demand Creation—*Selection of Merchandise to Bear Department Store Private Brands.* In considering the adoption of a private brand for use in its department store, a company had to decide whether the same brand should be placed on all the merchandise to be sold under a private brand, or whether different brands should be used for the various merchandise divisions, such as men's wear, women's wear, and house furnishings. Much advertising effort might be wasted if the company undertook to popularize several private brands; on the other hand, customers might object to having the same brand on merchandise of widely varying unit values and of diverse uses.

The merchandise executives of H. R. Cunliffe & Company's department store, in considering the establishment of a store brand, developed a difference of opinion on the following questions: (1) whether the principal emphasis in sales promotion should be put on goods bearing the store's own brand rather than on nationally advertised lines; and (2) whether, if the store used a private brand, the same brand should be used for all merchandise, or whether different brands should be used for various merchandise divisions, such as men's wear, women's wear, and house furnishings.

It had been suggested that the buyer for each department select in each line the price having the greatest popular appeal, and then secure a product to sell at that price, equal or superior in quality to the products, similar in grade and price, selling under nationally advertised brands. Products so selected would carry the store brand. This suggestion did not contemplate placing the store brand on style or fashion merchandise, or on merchandise

[1] Fictitious name.

the exclusive sale of which could not be confined to the store of H. R. Cunliffe & Company. Women's dresses and women's coats, for instance, would not be sold under the store brand, but underwear, hosiery, and corsets might be. Numerous articles of men's wear might be branded, as well as articles in such departments as hardware, kitchenware, and luggage.

The executives who favored the development of a private brand believed that by using its own brand the store could improve its competitive position, increase its gross margin, and escape the dictation of manufacturers. Nationally advertised articles, they said, were especially subject to price cutting. As an extreme example they referred to the toilet goods department; in the previous year, prices had been cut at one time or another by some store in the city on more than 200 of the articles carried in that department. The executives argued that if the store could build up a demand for articles bearing its own brand, it would not be subjected to such competition. They also pointed out that the store could control the mark-up on goods sold under its own brand, whereas on nationally advertised articles the store frequently was unable to secure its ordinary rate of mark-up and often had to sell at a small net profit or at no profit. The case was cited of a company manufacturing men's furnishings which undertook to control the retail prices of its products by refusing to sell to retailers who cut the prices without authorization. It was that company's custom to issue instructions each year to all its retail distributors, directing that on a specified day prices might be reduced by given amounts. The management of H. R. Cunliffe & Company in the past had found this arrangement disadvantageous, because it had been unable to reduce its stock through mark-downs at times when they would have been effective.

An additional consideration was that any store buying goods to be sold under its own brand was said to secure price advantages because of the steady business it could offer to the manufacturers.

In their discussions, the executives of H. R. Cunliffe & Company touched on several possible disadvantages of a private brand. It was said that the store's added selling expense for advertising and PM's on privately branded articles would approximate the advertising expenditures of the manufacturers of

trade-marked articles, and that, therefore, the store would not be able to give customers better values. Also, the advertising of manufacturers had developed consumer preferences that could not be overcome readily.

Several executives of the store took the position that much effort in advertising would be wasted if the store attempted to popularize more than one private brand, but that an undesirable impression would be created among consumers by the use of only one private brand. For example, one of these executives asked: "What will customers think if we sell them corsets, men's straw hats, and ash cans under the same brand? How will a man like it when he takes off a new overcoat for which he has paid $75 and sees on it the same brand that he has on his lawn mower? What will his wife think when she sees the same brand on her silk underwear that she sees on her kitchen utensils?"

The management of H. R. Cunliffe & Company had to decide whether to use one or more private brands and, if so, on what kinds of merchandise to place them.

Commentary: By the term "private brand" is commonly understood a brand owned by a wholesaler or retailer in contradistinction to a brand owned by a manufacturer, ordinarily known as a "national brand." A private brand of a wholesaler or retailer should be distinguished also from a mere label bearing the firm's name. Legally a private brand does not indicate the origin of the goods but rather stands for the exercise by the retailer or wholesaler of the functions of selection of merchandise and maintenance of uniformity of quality by means of specifications and inspections.

A department store, sending its buyers to market to select merchandise and maintaining noncontinuous relations with many manufacturers rather than continuous relations with a few manufacturers, unquestionably assumes a certain degree of responsibility in the eyes of the public for the goods which it sells. It may be said that a store, by placing a private brand on the goods which it sells, is definitely recognizing this responsibility. In numerous instances, however, the use of the store's name on labels might serve equally well to indicate the acceptance of some responsibility for the merchandise. The private brand, therefore, ordinarily is not adopted by a department store merely as an indication of its acceptance of responsibility for the merchandise. In some instances, it may be suspected that private brands are primarily a gratification of egotism, but one must look farther than this to find

the real reasons for the use of such brands by numerous department stores.

Private brands are sometimes applied by a department store to articles of types commonly branded and advertised by manufacturers, such as men's shoes, mechanical appliances of various sorts, and toilet goods. The motive of a department store in placing private brands on goods of this type may be to protect its margin of profit. In some instances, manufacturers may have narrowed the margin of profit on these articles or may have sought to maintain resale prices in such a way as to handicap a store in carrying out its merchandising policy.[2] Also, a department store's difficulties in merchandising such goods may be ascribable partly to price cutting on the goods by competing stores. Hence a department store may decide to make arrangements to sell such merchandise under its own private brand, in order to control the margin of profit and to protect itself from competitive price cutting. In putting a private brand on goods of this type, a department store commonly enters into close and fairly continuous relations with certain manufacturers. It incurs on these goods more sales promotion expense than perhaps would be incurred in the sale of similar merchandise under manufacturers' brands. Also, the store's rate of stock-turn may be lowered by the larger quantities of such merchandise which it is compelled to purchase in order to make it worth while for the manufacturers to furnish it with goods to be sold under a private brand.[3]

On the other hand, department stores not infrequently place private brands on a type of merchandise not commonly branded or advertised by manufacturers, namely, style or shopping goods, the characteristics of which are prone to change from year to year, and in the purchase of which there may not be any great degree of continuity of relationship between the store and the manufacturer. In such cases, a private brand in the eyes of the consumer may stand primarily for the store's exercise of judgment in the selection of style. It is also possible that such private brands may have some positive sales promotion value as being less negative and colorless than a mere label on the garments bearing the firm's name. It should also be observed that in recent years there has been an increasing tendency for stores engaged in

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[2] See United States *v.* Colgate & Company; Federal Trade Commission *v.* Beech-Nut Packing Company; Federal Trade Commission *v.* Cream of Wheat Company; Federal Trade Commission *v.* Toledo Pipe Threading Machine Company; Federal Trade Commission *v.* Hills Brothers; Federal Trade Commission *v.* Q. R. S. Music Company; Federal Trade Commission *v.* Houbigant, Incorporated, 3 H.B.R. 473-582.

[3] See Wechsler Company, 3 H.B.R. 115; see also Bureau of Business Research, Harvard University, Bulletin No. 55, *Cases on Merchandise Control in the Wholesale Grocery Business,* case of the Broderick Company, p. 18.

so-called group buying to use a private brand on some or all of the goods purchased in this way.[4]

While department stores have used private brands in the past on both the general classes of merchandise considered in the foregoing discussion, there is reason to think that stores of this type can use private brands somewhat more effectively for the latter classification of goods than for the former. Since the characteristics of typical style merchandise tend to vary from year to year, it is perhaps easier for a department store to brand such merchandise than it is for the manufacturer, since the store, selecting its merchandise from numerous different sources, is in a better position than any one manufacturer to keep in the forefront of style development.

In the event that a department store such as H. R. Cunliffe & Company decides to use private brands for any of the reasons that have been set forth, a number of specific problems are at once encountered. In the first place, the store has the task of keeping both its own name and the brand name before the public and of keeping them associated in the minds of its customers. Furthermore, since a department store handles a multiplicity of different kinds of merchandise, it inevitably faces a dilemma: if a single brand is used on too many different kinds of articles, its effectiveness for sales promotion will be weakened, since the association in the minds of customers may be either vague or actually unfavorable; on the other hand, if a department store uses a number of different brand names, it is difficult to keep them all before the public and to make them stand for anything definite.

The problem faced by H. R. Cunliffe & Company was, therefore, a difficult one. In the present stage of marketing development, it may be answered as follows:

1. This store ordinarily would have to carry some nationally branded merchandise in order to meet the demands of customers for such goods.

2. If private brands were used at all, they might be used more effectively on merchandise which ordinarily is not branded by manufacturers than on merchandise of types commonly branded and advertised by manufacturers.

3. If private brands were used, there should be more than one brand, but not too many.

4. A private brand should be applied to a selected line in each department, usually the best selling line, not to all lines in a department.

5. The store should maintain a particularly careful check on the style and quality of merchandise sold under private brands.

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[4] See Hatch Company, 2 H.B.R. 277.

Galeworth Company[1]

DEPARTMENT STORE—MILLINERY AND INFANTS' WEAR

Pricing—*Mark-Downs on Slow-Selling Merchandise.* The report of the slow-selling merchandise office of a department store in the first week of September showed on hand in the infants' wear department a considerable quantity of staples, sold and reordered constantly, which either were soiled, showed signs of shelf wear, or did not equal the appearance of new merchandise in the department, and in the millinery department two groups of tweed sport hats, bought for the spring season. The executive of the slow-selling merchandise office recommended that this merchandise be sold as quickly as possible, and suggested either a group mark-down on the entire lot of merchandise in each department or a unit mark-down varying with each item's original cost, the demand for it, and the extent of its depreciation. The merchandise manager decided to take a group price reduction in the millinery department and to take mark-downs by individual items in the infants' wear department.

The reports compiled by the slow-selling merchandise office of the Galeworth Company, a department store, during the first week in September indicated that a considerable quantity of merchandise was on the shelves in both the infants' wear department and the millinery department which the company should dispose of as quickly as possible, even at a substantial reduction in prices.

The slow-selling merchandise reports, which the executive of the slow-selling merchandise office compiled the first of each month, indicated all items in each department that, in his judgment, the store should sell as quickly as possible. The slow-selling merchandise office followed up the merchandise thus recorded and made suggestions to the buyers concerned as to possible ways of disposing of it.

The slow-selling merchandise report for the infants' wear department was as shown in Exhibit 1.

Although the merchandise listed on the report for the infants' wear department consisted primarily of staples which were being sold and reordered constantly, each item on the list either was soiled, showed signs of shelf wear, or for some other reason did not equal in appearance the new merchandise in the department.

[1] Fictitious name.

Exhibit 1

Slow-Selling Merchandise Report for Infants' Wear Department of Galeworth Company

Number in Stock	Item	Unit Retail Price	Total Retail Price	Unit Cost	Total Cost
7	Skirts	$ 2.50	$ 17.50	$1.85	$ 12.95
1	Skirts	2.00	2.00	1.35	1.35
3	Combinations	3.95	11.85	2.00	6.00
33	Drawers	.95	31.35	.65	21.45
12	Drawers	1.15	13.80	.85	10.20
7	Drawers	1.25	8.75	.90	6.30
24	Drawers	.50	12.00	.25	6.00
1	Velvet coat	15.00	15.00	8.25	8.25
28	Pique hats	.50	14.00	.30	8.40
14	Coats	3.95	55.30	2.10	29.40
2	Dresses	7.50	15.00	4.25	8.50
2	Dresses	6.50	13.00	3.00	6.00
2	Dresses	3.50	7.00	1.75	3.50
7	Dresses	8.50	59.50	4.00	28.00
6	Dresses	7.95	47.70	3.00	22.80
12	Dresses	5.00	60.00	3.00	36.00
1	Dresses	2.50	2.50	1.60	1.60
1	Dresses	2.95	2.95	1.75	1.75
1	Dresses	1.95	1.95	.75	.75
5	Dresses	5.50	27.50	3.10	15.50
15	Nightgowns	4.25	63.75	2.00	30.00
24	Skirts	1.95	46.80	1.00	24.00
10	Skirts	1.50	15.00	.80	8.00
1	Skirts	2.50	2.50	1.60	1.60
Total			$546.70		$298.30

The executive of the slow-selling merchandise office was convinced that merchandise in this condition not only would remain on the shelves indefinitely if kept at the original prices and displayed with merchandise of the same kind, but also would detract from the prestige of the department.

The slow-selling merchandise in the millinery department consisted of two groups of tweed sport hats that had been purchased in February for the spring season. The report for this department was as given in Exhibit 2.

Since the demand for these hats was of a seasonal nature, it was evident that they ought to be disposed of before the fall stock was placed on display. Inasmuch as all other lines of tweed sport hats had been sold earlier in the season, there was no comparable merchandise in the department.

The executive of the slow-selling merchandise office suggested two methods of taking reductions on the slow-selling merchandise in the infants' wear department and the millinery department. A group mark-down on the entire lot of merchandise in each department would eliminate the detailed work of determining a new selling price for each article and of marking each piece of mer-

EXHIBIT 2

SLOW-SELLING MERCHANDISE REPORT FOR
MILLINERY DEPARTMENT OF GALEWORTH COMPANY

Number in Stock	Item	Unit Retail Price	Total Retail Price	Unit Cost	Total Cost
74	Tweed sport hats	$6.50	$481.00	$3.25	$240.50
29	Tweed sport hats	3.50	101.50	2.75	79.75
Total			$582.50		$320.25

chandise. Such a group reduction probably would have to amount to at least 50% of the selling price in order to attract attention. The entire lot could be placed on display on a bargain table with a sign indicating that all the merchandise was being sold at 50% below the marked price.

On the other hand, a 50% reduction on the entire group would make it appear that all merchandise in the lot had depreciated equally. It was doubtful if such was the case, especially in the infants' wear department, where a large portion of the merchandise was being reduced simply because it was soiled or shelf worn, and would have to be replaced immediately. In the millinery department, however, the style element was the chief cause of reduction. Since a group reduction in either department would not take into account the original cost of the merchandise, such a mark-down would result in a heavy loss on some items and a slight loss on others. A unit mark-down would enable the buyer to consider the original cost of each item, the demand for that item, and the extent to which its value to customers had been reduced, and to mark the merchandise accordingly.

The question was referred to the merchandise manager, who decided to take a group price reduction of 50% in the millinery department, and to take mark-downs by individual items in the infants' wear department.

COMMENTARY: The decision of the merchandise manager appears to have been in accordance with sound policy. When it becomes necessary to reduce a retail price, little consideration can be given to the original cost of the merchandise in question; since the merchandise has failed to sell at the original price, the problem is to reduce it to a price low enough to effect a prompt sale but not lower than necessary to effect such sale. In determining such a price, it is necessary

to seek the reasons why the merchandise has failed to sell at the original price.

In this case the reasons necessitating the mark-down were not the same in the two departments. With respect to the millinery department, the hats could not be sold at their original retail prices because of style obsolescence. This was a cause which affected all the hats practically in the same degree. Consequently, a uniform price reduction on all these hats was entirely feasible.

On the other hand, in the infants' wear department the factor of style obsolescence was not the reason for the failure of this merchandise to sell at the original retail prices. Price reductions were necessary here because numerous items of merchandise were soiled and otherwise shopworn. Evidently this cause did not apply with equal effect to all the items under consideration. Consequently, a general group price reduction might have resulted in lower prices than necessary on some items and not sufficiently low prices on other items. Therefore, in taking mark-downs in this department it was a sound procedure to consider the condition of each individual item and its relative salability.

It may be pointed out incidentally that some of the mark-downs in the infants' wear department might have been avoided if merchandise had not been carried at so many different retail prices.[2]

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[2] For instances of reduction in the number of price lines in women's shoe departments of department stores, see Bureau of Business Research, Harvard University, Bulletin No. 59, *Cases on Merchandise Control in Women's Shoe Departments of Department Stores,* pp. 22-50.

Ivar Shoe Company[1]

CHAIN STORES—SHOES

Pricing—*Single-Price Policy in Chain Stores.* In three of the five retail shoe stores that it operated, a company featured shoes, for both men and women, which it sold under its private brand at a single price of $5. The company had planned to establish that line as the principal line in all its stores, but increases in the prices of leather in the autumn of 1924 led it to consider changing its single-price policy. The gross margin on the women's shoes had been adequate, but the margin on the men's shoes had been narrow. The president of the company was averse to discontinuing the men's department, however, inasmuch as it carried a part of the overhead expense.

(1924)

The Ivar Shoe Company operated a chain of five retail shoe stores, each in a different city. All sales were made for cash. In 1924 the company's total net sales were $3,500,000. These sales were divided among the five stores approximately as follows:

Buffalo store	$1,500,000
Cincinnati store	700,000
Rochester store	500,000
Syracuse store	500,000
Utica store	300,000

All the company's stores sold men's and women's shoes at bargain prices, and the Buffalo, Cincinnati, and Rochester stores also sold a line of shoes at a single price of $5 a pair. The company had planned eventually to establish the single-price line as the chief line for all the stores. In December, 1924, the single-price shoes had been sold in the Buffalo, Cincinnati, and Rochester stores, under the Ivar Shoe Company's own brand, for a year and three months. The quality of the shoes had been maintained, slight variations in cost being absorbed in gross margin.

During October and November, 1924, leather prices had risen,[2] and, because of the effect which higher leather prices might have on the cost prices of the shoes which it was selling for $5, the

[1] Fictitious name.

[2] Harvard Economic Service, Committee on Economic Research, Cambridge, Massachusetts, *Weekly Letter,* December 13, 1924:

Ivar Shoe Company in December of that year considered changing the single-price policy.

During 1924 the total expenses of the company, exclusive of interest on owned capital, amounted to 27% of net sales. The maintained gross margin from October, 1923, through April, 1924, was about 25% of net sales. The advertising appropriation for the year 1924 was $75,000. About half this amount was spent in advertising, in Buffalo, Cincinnati, and Rochester newspapers, the company's single-price line of $5 shoes. The remainder of the appropriation was spent for institutional advertising in all five cities in which the company's stores were located.

The Cincinnati store had been established for three years, the Rochester store for two years, the Buffalo store for one year and three months, and the Syracuse and Utica stores both for one year. The Cincinnati, Rochester, Syracuse, and Utica stores were located centrally in the retail areas of their respective cities, but the Buffalo store was situated several blocks from the center of the shopping district.

In each of the stores selling both the single-price and the bargain shoes, the bargain department was operated independently of the single-price merchandise department and had a separate buyer and a separate sales force. All goods to be sold at bargain prices were purchased in job lots. The company sought to obtain an average mark-up of 37.5% on selling price in the bargain departments. Total sales of the bargain departments in 1924 were approximately as follows:

Buffalo store	$500,000
Cincinnati store	300,000
Rochester store	150,000
Syracuse store	500,000
Utica store	300,000

About 67% of the company's total sales in the $5 lines were of women's shoes, 25% of men's shoes, and 8% of children's shoes. For 1924 the average billed cost of women's shoes to be sold at $5 was $3.50 a pair; the manufacturers allowed a discount of

Index of Sole Leather Prices

	1923	1924		1923	1924
January	...	.435	July	5.25	.430
February	...	.435	August	.498	.430
March	.565	.435	September	.458	.430
April	.565	.435	October	.450	.442
May	.565	.435	November	.438	.458
June	.555	.431	December	.435	...

7% for payment by the tenth of the month following receipt of the invoice. The average rate of stock-turn in the five women's shoe departments was two times a year. The style element, which was difficult to forecast, was the controlling factor in the sale of women's shoes. Occasionally, after carrying a lot of shoes for from six to nine months, the stores marked them down to $3.90 or $2.90 a pair during special sales held in January and July. The management estimated that, in order to allow for the possibility of losses resulting from style obsolescence, the women's shoes should have an average original mark-up of at least 35% of selling price.

The Ivar Shoe Company purchased welt shoes regularly from four manufacturers, turn shoes from two manufacturers, and McKay process shoes from two manufacturers. It purchased no job lots for the regular $5 lines. During 1923 and 1924 the manufacturers from whom the company bought women's shoes for sale at $5 a pair had been able to improve the quality and style of those shoes as a result of manufacturing economies. A further increase in leather prices, however, might counteract those economies, and the president of the Ivar Shoe Company believed that the manufacturers' prices for the women's shoes carried by the company might rise as high as $3.75 a pair. The company's first purchases for the spring season would be made about January 20 and deliveries could be obtained in about four weeks. Five per cent of the novelty shoes and 30% of the staple shoes would be ordered at that time.

The situation was less satisfactory with respect to the men's shoes which the company sold for $5 a pair, because on those shoes the company had sustained an actual net loss. The average billed cost of those shoes to the Ivar Shoe Company during 1924 was $4.20 a pair, which was approximately the same as the cost when the $5 price was inaugurated. The manufacturers offered cash discounts of 5% for payment by the tenth of the month following delivery. The rate of stock-turn for the men's shoes was approximately two times per year; the president of the company considered that the turnover should be increased to at least 3½ times a year. During the semiannual sales, men's shoes were marked down to the same prices as were women's shoes. From 10% to 15% of the company's annual sales volume was obtained during these special sales.

In the sale of men's shoes, quality was an important factor. From the experience of other shoe stores, the president considered it impossible to reduce the quality of the leather and workmanship in men's shoes, and at the same time maintain the volume of sales. In spite of the net loss, he believed that so long as the operation of the men's departments yielded a gross margin larger than their direct selling expense, their continuance was justified because they were carrying a part of the general expenses of the company. Even if sales of men's shoes were discontinued entirely, it would not be possible to reduce the overhead expenses appreciably, since it did not seem likely that the sales of women's shoes could be increased sufficiently to cover the part of the overhead expenses which was carried by the sales of men's shoes.

The situation with respect to children's, misses', and boys' shoes was satisfactory, but these lines were of comparatively little consequence because of the small volume of sales.

The major problem faced by the management was that of price policy.

Commentary: This case is primarily concerned with the policy of selling all shoes at a single price.[3] There are certain supposed advantages in concentrating all sales of shoes at a single price. In the first place, it is argued that association in the customer's mind of shoes of a certain quality with one specific price has a psychological effect which lowers sales resistance, partly because of the assurance given the customer that he will not have to pay more than $5, for instance, for a pair of shoes if he patronizes this particular store. Experience seems to indicate that this argument applies more strongly in the case of men's shoes than in the case of women's shoes. Consequently, the final decision of the Ivar Shoe Company with respect to its price policy would have to be conditioned by its decision as to whether it should concentrate on either men's or women's shoes or continue to sell both.

Another advantage quite clearly arising from a single-price policy is the greater ease of stock control.[4] Also, it may be possible to secure a more rapid rate of stock-turn and to avoid losses from the accumulation of unsalable sizes when shoes are sold at a single price, because

[3] A distinction should be made between a single-price policy and a one-price policy. For cases on one-price policy, see Pulitzer Company, 3 H.B.R. 180; Windermere Dry Goods Company, 3 H.B.R. 392; Ellsworth Company, 3 H.B.R. 403; Rickel Shoe Supplies Company, 3 H.B.R. 431.

[4] See Leon Shoe Company, 2 H.B.R. 149.

if shoes are sold at a variety of prices it is necessary to carry an adequate range of sizes for each price, with the result that some unsalable sizes are almost sure to be accumulated. These are important considerations for a chain store.

There are certain important disadvantages, however, connected with a policy of selling all shoes at a single price. These may be summarized as follows:

1. If a single price is to be maintained over a considerable period of time, it becomes necessary to vary the quality of the shoes offered because of changes in the cost of leather and changes in production costs. In the long run, it would appear to be more important for a merchant to maintain uniformity of quality than uniformity of price.

2. When all shoes are sold at a single price, there is inevitably a wide variation in the ratio of mark-up on different shoes. In some instances, shoes sold at $5 may have been purchased for not more than $2 or $3; in another instance, they may have cost as much as $4 or $4.50. This variation of mark-up, furthermore, is not, under a single-price policy, necessarily related to the desirability of particular shoes in the eyes of potential customers. The inflexibility of a single-price policy has a further disadvantage in not permitting a higher mark-up on shoes which may at a particular time be especially attractive because of style features, but which may later suffer rapid obsolescence because of changes in fashion.

3. On a rising market, the margin of profit may be dangerously narrowed, as the experience of the Ivar Shoe Company indicates; while, on a falling market, the inflexibility of a single-price policy increases the difficulty of meeting competition.

4. Adherence to a single-price policy is a handicap in taking markdowns.

5. A store operating on a single-price policy definitely foregoes any advantages that might arise from offering a wider range for selection by means of carrying shoes at several different prices.

6. A policy of selling all shoes at a single price restricts the sources of purchase.

Although on a theoretical basis there are more arguments against a single-price policy than there are arguments in favor of such a plan, it must be recognized that for a chain store selling shoes of low-medium quality, the arguments in favor of this policy have particular weight. In certain respects, however, the single-price policy partakes of the nature of a fad, and perhaps eventually will not be so effective a sales promotion device as it appears to be at the present time. Therefore it does not seem advisable to recommend it as a long-run policy.

In meeting its immediate problems, the Ivar Shoe Company needed to increase its margin of profit, speed up its rate of stock-turn, and decrease the ratio of expense to sales. In seeking to accomplish these ends the company should have used several different prices, presumably not more than six, in order to secure a somewhat higher mark-up; held clearance sales of obsolete stock; and initiated a detailed stock control system.[5] Eventually the company should have discontinued its bargain lines of shoes and concentrated on either men's or women's shoes.

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[5] See Bureau of Business Research, Harvard University, Bulletin No. 59, *Cases on Merchandise Control in Women's Shoe Departments of Department Stores.*

Hoslin Grocery Company[1]

IMPORTER—CANNED PEAS

Pricing—*Estimating Landed Cost of Imported Merchandise.* A company which imported groceries for wholesale and retail distribution purchased from a French canning company 500 cases of peas f.o.b. Havre on a 60-day sight draft. As it was necessary to quote the selling prices on the peas before their receipt, the company made an estimate of landed cost, forecasting exchange values and making allowances for insurance and wharfinger charges. The estimate indicated that the company could obtain its desired percentage of mark-up by selling the peas at its usual wholesale price and at a retail price slightly lower than usual. The actual landed cost proved to be slightly less than that estimated.

Pricing—*Selling Prices Based on Estimated Landed Cost.* Because a company importing groceries for wholesale and retail distribution had to set the selling price of a shipment of French peas before it received them. it made an estimate of landed cost, in order to determine whether the peas could be sold at the company's usual prices of 35 cents a can retail and 30 cents a can wholesale. The estimate indicated that the company could sell the peas at 33 cents a can retail and obtain its usual 50% mark-up on the item. The company, however, fixed the retail price at 35 cents, because its competitors were selling similar peas at that price and because it wanted a price which was a multiple of five.

(1924)

The Hoslin Grocery Company, an importer of groceries for wholesale and retail distribution, wished to determine whether it could sell, in 1924, an importation of high-grade canned French peas at the usual prices of 35 cents per can retail and 30 cents per can wholesale.

For about 40 years, the Hoslin Grocery Company had purchased annually from 400 to 500 cases of peas from a canning company located near Paris. Each case weighed 139 pounds and contained 100 cans. The company sold about 75% of the imported peas at retail and about 25% at wholesale. It obtained a mark-up on this product of about 50% on landed cost when selling at retail, and of about 30% on landed cost when selling at wholesale. The Hoslin Grocery Company did not favor the plan of having one percentage of mark-up for all its imported merchandise. The company marked up each product separately

[1] Fictitious name.

on a basis of actual cost and with reference to the salability of the product.

The Hoslin Grocery Company maintained its own foreign department at an annual cost of about $12,000. This department made arrangements for purchases from foreign exporters and entered the merchandise through customs. The company included the cost of maintaining the foreign department in the percentage of mark-up added to the cost of the merchandise to determine the selling price.

In April or May of each year, the French canning company asked its customers to state their requirements for the year; the French company canned only enough peas to meet these requirements. The Hoslin Grocery Company placed orders for canned French peas in June of each year for delivery as soon as possible, which was usually about the first of September. The company purchased all its canned French peas in one shipment, because the peak of the sales was in the fall and because the French canning company was likely to increase the price after the first orders had been received. The canning company, moreover, allowed a quantity discount of about 1% on orders of 500 cases or more.

The Hoslin Grocery Company received orders for the peas throughout the year and made deliveries on these orders between the middle of September and the first of June. It sold and delivered about 60% of the peas between the middle of September and the first of January. The company received about 10% of the wholesale orders during July and August, but there was practically no retail market for canned peas during those months, because of the large sales of fresh peas. As the peas were likely to spoil if kept for more than one year, the company endeavored to sell what it received in the fall before June of the following year.

The Hoslin Grocery Company had to fix the selling prices of the French peas before it received them. Quotations had to be made to wholesalers who placed their orders before the peas arrived, and the retail price had to be printed in the company's price catalogue. The company did not guarantee the prices against change, but believed that it was advisable to avoid changing them. The fact that the importer paid for the French peas in francs, 60 days after receipt of the draft drawn by the sup-

plier, and the fact that the product was a competitive one, were further reasons why it was important for the Hoslin Grocery Company to fix the prices with care.

In June, 1924, the French canning company quoted to the Hoslin Grocery Company a price of 325 francs per case f.o.b. Havre. This price appeared to be favorable as compared with prices quoted by other canning companies in France. The size of the pea crop in France and the cost of canning peas in 1924 were about the same as in 1922 and 1923. The Hoslin Grocery Company, therefore, placed an order for 500 cases of peas with its customary supplier and undertook to determine the retail and wholesale prices at which the peas would have to be sold in order to yield the company the usual mark-up above the landed costs.

In June, 1924, when the Hoslin Grocery Company placed its order with the French company, the exchange value of the franc was $0.0530. The fluctuations in the exchange value of the franc from March 1 to May 31, 1924, are shown in Exhibit 1.

EXHIBIT 1

VALUE OF FRENCH FRANC IN UNITED STATES DOLLARS, 1924

Export Trade and Finance,*	issue of March 1, 1924	$0.0427
	issue of March 15	.0385
	issue of April 5	.0573
	issue of April 19	.0623
	issue of May 3	.0648
	issue of May 17	.0567
	issue of May 31	.0539

*Closing figures for week preceding the date of publication.

The Hoslin Grocery Company estimated that the exchange value of the franc in the latter part of September or the first part of October, when the company would pay the draft for the invoice, would be $0.0550. The company expected the value of the franc to rise in July and August, when imports were large and many Americans were traveling in France. If it became evident that the value of the franc was going to increase above $0.0550, the company could purchase enough francs to cover its order before the value of the franc reached a much higher point. The Hoslin Grocery Company, therefore, figured the cost of 500 cases of French peas at 325 francs per case to be $8,937.50.

The company, in determining the landed cost of the merchandise, allowed 1% of the invoice value of the merchandise, $89.38,

for insurance, although on the open policy with which the company would insure this shipment the actual cost of the premium would be only $60. The difference would offset incidental expenses attributable to the foreign department and not included in the $12,000 expended in maintaining that department.

Since there was no direct sailing from Havre, the port from which the company's shipments from Paris to the United States were made, to Boston, where the Hoslin Grocery Company maintained its main office and warehouse, the company had to ship its merchandise from Paris through Antwerp, Liverpool, or New York. The freight rate on canned peas from Havre to Boston through New York was 135 shillings per 1,000 kilograms (2,204.6 pounds). The rate from Havre to Boston through Liverpool was 90 shillings per 1,000 kilograms, and the rate from Havre to Boston through Antwerp was 80 shillings per 1,000 kilograms. As the time the shipment would be in transit would be about the same for all three routes, and as the three steamship companies which gave these quotations were equally reliable, the company would have the merchandise sent by way of Antwerp.

The Hoslin Grocery Company would have to cable enough shillings to pay the freight charges at the time the merchandise was placed on the vessel at Havre. The company believed that the exchange value of the pound sterling would not be higher than $4.40 on the date on which the freight would have to be paid. The exchange value of the pound sterling on the day the order for the peas was placed was $4.31. For several weeks previous to that date, the exchange value had been slightly below $4.40. With this rate of exchange, the company figured the freight charges on this shipment of 69,500 pounds to be $554.75.

Canned peas bore a specific duty of 2 cents a pound. This duty would increase the cost of the shipment by $1,390. The railroads which owned the Boston wharves placed a wharfinger charge of 5 cents a case on importations into Boston. If the merchandise was to be shipped to an interior point on the railroad owning the wharf where the merchandise was landed, the wharfinger charge was included in the railroad freight rate. The peas which the Hoslin Grocery Company imported were taken from the wharf to the warehouse by truck. A total of the costs enumerated above determined the landed cost of the merchandise, as given in Exhibit 2.

Exhibit 2

Estimated Cost to Hoslin Grocery Company of Its 1924 Importation of Canned French Peas

Invoiced Cost (500 cases at 325 francs; estimated value of franc $.0550)	$8,937.50	
Insurance (1% of $8,937.50)	89.38	
Freight (estimated value of pound sterling $4.40)	554.75	
Duty (2 cents per pound)	1,390.00	
Wharfinger Charge (5 cents per case)	25.00	
Total Landed Cost		$10,996.63
Cost per Case		21.99
Cost per Can		.22
Retail Selling Price at the Desired 50% Mark-up		.33
Usual Retail Selling Price		.35

These estimates indicated that by selling the peas at 33 cents a can retail and at 30 cents a can wholesale the Hoslin Grocery Company could make the desired profit. The company decided, however, to sell its 1924 importation of peas at 35 cents per can retail. Competitors sold similar grades of canned French peas for 35 cents per can, and the company wished, moreover, to set the price at the nearest multiple of five.

The 500 cases of peas which the Hoslin Grocery Company ordered from the French canning company were shipped on July 20 and received in Boston on September 15. The draft for the invoice was presented to the Hoslin Grocery Company on August 2; it took the draft 13 days to reach the importer. The exchange value of the franc on October 2, the day on which the 60-day draft was paid, was $0.0527. The exchange value of the pound sterling on the day the freight was paid from Havre was $4.36. The actual cost to the Hoslin Grocery Company of the 500 cases of peas is shown in Exhibit 3.

Exhibit 3

Actual Cost to Hoslin Grocery Company of Its 1924 Importation of Canned French Peas

Invoiced Cost (value of the franc, $.0527)	$8,563.75	
Insurance (1% of $8,417.50, which was the valuation of the merchandise insured at its franc value of $.0518 on July 15)	84.18	
Freight (at the July 15 rate of sterling, $4.369)	550.84	
Duty	1,390.00	
Wharfinger Charge	25.00	
Total Landed Cost		$10,613.77
Cost per Case		21.22
Cost per Can		.212

Commentary: The chief issue in this problem concerns the determination of selling price of an imported commodity on the basis of an analysis of probable landed costs in the United States. It was necessary to set the selling price in advance of the receipt of shipment and payment. The chief uncertain factors in determining the landed cost were the fluctuations in the rate of exchange of the franc and the pound sterling. The product considered was a staple luxury. Since on such a product a medium high rate of mark-up was possible, the estimates of landed costs did not require so great a degree of refinement as would be necessary where narrow margins of profit rule. Nevertheless, because the product was competitive, the company had to fix prices with care.

In making the estimates of costs, the Hoslin Grocery Company took what it believed would be the highest exchange rate for the franc when the payment would be made in October. In like manner it took the highest expected rate for the pound sterling. On the basis of these exchange rates, the company estimated that, allowing its customary percentage of mark-up, the possible selling price would come to 33 cents a can, well within the usual retail price of 35 cents a can charged for this line of merchandise. The company also allowed in its estimate a 50% increase in the cost of insurance over the actual cost under its blanket insurance policy. Import duty, being specific, offered no uncertainty in forming the estimate.

The exchange risk was further lessened by the fact, as stated in the case, that the company could later in the spring or summer cover its exchange if the evidence then seemed clear that the franc was likely to advance beyond the earlier estimates. This would require, however, that some one in the organization was making it his task to follow carefully exchange movements in relation to all the company's foreign obligations. Furthermore, a considerable exchange advance beyond the $0.055 allowed in the estimate could do little more than reduce the company's gross profits by a small amount, in view of the fact that the company had made rather generous estimates of the elements involved in determining in advance the landed costs and that there was still a margin of 2 cents a can between the computed necessary minimum to realize a 50% mark-up and the 35 cents set as the actual price. Exchange could have gone to $0.06 per franc and the company could still have given 35 cents as the selling price. While there was certainly a risk that exchange might go much higher than anticipated, it is also true that even a much higher exchange than was anticipated would still enable the company to make a profit. There remained also the possibility of later advancing the catalogue selling prices, if necessary. It might be argued, therefore, that, although not following the most conservative method, the company was not assuming any unusual risk

in following the plan outlined. For a semi-luxury product such as this, where a high rate of mark-up is customary, the risk of actual loss due to exchange fluctuations was relatively small, and the need of protection by purchase of future exchange therefore less necessary than in a product where margins are narrow.

Nevertheless, it must be admitted that the company was taking unnecessary, even if not large, risks on the exchange rate. At the best, the exchange rate selected was a matter of opinion. There could be no assurance in 1924 that it was the maximum. Doubtless the company could have arranged with its bank, at the time of placing the order, a contract for delivery of francs on October 1 at a definite rate, and thus have avoided risk of high rates. This would have been the safest method, especially during a period of such considerable exchange fluctuations in francs as were still common in 1924, as shown by the table of exchange rates given in the case. And this plan being safest, there seems to be no good reason why the company should not have fully protected itself. As a merchandising company, the Hoslin Grocery Company could not afford to take risks in purely exchange matters, even though those risks were apparently not large, when it was readily possible to have eliminated such risks by buying forward exchange.

December, 1927 G. B. R.

Quaboag Hosiery Company[1]

MANUFACTURER—HOSIERY

Pricing—*Fluctuations in Foreign Exchange as Factor in Exporter's Prices.* An American company manufacturing medium-priced hosiery quoted prices to English wholesalers in terms of sterling. Most of the orders were placed during the latter part of the year for delivery in the following spring. When the exchange value of the pound sterling rose in February, 1925, the company decided not to reduce its prices to English customers and thereby antagonize wholesalers who already had purchased for future delivery, although it would encounter competition from American manufacturers who did reduce prices.

Advertising—*Establishing Consumer Demand in Foreign Market.* An American company manufacturing medium-priced hosiery, and quoting prices to English wholesalers in terms of sterling, did not reduce its prices to English customers when the exchange value of the pound sterling rose in February, 1925, because it did not wish to antagonize those wholesalers who already had purchased for future delivery. In order to meet the competition of American manufacturers who did reduce prices, the company decided to conduct an advertising campaign designed to establish consumer demand for its hosiery in the English market at a higher level of retail prices than the prices of competitive hosiery.

(1925)

Because of an unexpected profit on its sales in the English market resulting from a favorable movement in the exchange value of the pound sterling, the Quaboag Hosiery Company, in 1925, had an opportunity to reduce prices to English wholesalers.

The Quaboag Hosiery Company, located in northern New Jersey, was well known in 1925 as a company of more than 25 years' standing in the production of low-priced and medium-priced hosiery of good quality. The company produced men's, women's, and children's stockings. Prior to 1922, Quaboag half hose for men sold at retail for from 15 cents to 35 cents a pair, children's stockings for from 15 cents to 35 cents a pair, and women's stockings for from 25 cents to 75 cents a pair. In 1922, in recognition of the changed character of consumer demand for hosiery, the company determined to produce hosiery of greater variety and higher quality; consequently, in 1923, the company's entire sales emphasis was upon hosiery to retail for 75 cents and $1.

[1] Fictitious name.

In that year, a women's pure silk and fiber stocking and a men's pure silk half hose were leading styles retailing for $1. A women's wool and cotton mixture stocking sold for 75 cents; the same style with fancy clocks sold for $1. The company produced a men's half hose of gassed mercerized cotton to sell for 75 cents. In addition, the company made a small quantity of men's all wool half hose to sell at $1.35 and of women's pure silk stockings to retail at $1.50. It also produced children's hosiery to sell at from 25 cents to 50 cents a pair, and continued production of the cheaper grades of men's and women's hosiery to sell at from 25 cents to 75 cents.

The situation with respect to styles and prices was the same in 1924 as in 1923, and the company intended to continue on that basis throughout 1925. Approximately 90% of the company's domestic sales were packed under the Quaboag label. The remainder were packed under wholesalers' private brands.

The Quaboag Hosiery Company had begun to sell hosiery in the British Isles in 1913, and had built up a substantial goodwill there. Until 1917, two agents had represented the company in England, one in London, who also had served Scotland, Ireland, and Wales, and the other in Manchester, who had served the remainder of the territory. The outbreak of the World War had caused an increase in the company's hosiery sales in the English market. The company's annual sales, in dozens of pairs and in dollars, in the English market from 1915 to 1924, are given in

Exhibit 1

Annual Sales of Quaboag Hosiery Company in the English Market, 1915 to 1924, Inclusive

Year	Sales in Dozens of Pairs	Sales in Dollars
1915	605,683	$ 918,341
1916	642,941	1,082,098
1917	279,379	723,633
1918	144,195	560,585
1919	415,319	1,789,813
1920	254,174	1,247,311
1921	121,996	478,278
1922	319,027	886,854
1923	98,506	357,665
1924	146,230	596,221

Exhibit 1. The volume of sales attained in 1915 and 1916, amounting to about $1,000,000 in each year, had not continued through the succeeding years, partly because of the entry of the United States into the war and partly because of the release of one of the company's agents in 1917. After that time, but one agent, with headquarters in London, had represented the Quaboag Hosiery Company in the British Isles. The company's English sales in 1924 were about $600,000.

The orders which the Quaboag Hosiery Company received from English customers during 1923, 1924, and January, 1925, are given in dozens of pairs, by months, in Exhibit 2. Those orders totaled 47,217 dozens of pairs in 1923, and 183,196 dozens of pairs in 1924.

EXHIBIT 2

HOSIERY ORDERED FROM QUABOAG HOSIERY COMPANY BY ENGLISH WHOLESALERS, IN DOZENS OF PAIRS, BY MONTHS, JANUARY, 1923, TO JANUARY, 1925, INCLUSIVE

Month	ORDERS (In Dozens of Pairs)		
	1923	1924	1925
January	4,726	15,591	15,731
February	200	6,825	
March	100	5,508	
April	6,277	8,371	
May	2,644	8,452	
June	2,720	12,769	
July	......	8,085	
August	3,205	22,937	
September	6,350	32,194	
October	5,230	33,345	
November	13,678	15,234	
December	2,087	13,885	
Total	47,217	183,196	

The Quaboag Hosiery Company was able to sell only women's hosiery in the English market. Only stockings of wool were in much demand for men's and children's wear, and the Quaboag Hosiery Company could not market woolen hosiery in the English market in competition with local manufacturers.

Until 1924, all the hosiery which the Quaboag Hosiery Company sold in the English market was marked with wholesalers' private brands; the Quaboag name did not appear. The company's general policy with respect to brands was to reduce and

eventually to eliminate sales of its hosiery under private brands. In accordance with this policy, an executive of the company succeeded, in 1924, in persuading English wholesalers to sell Quaboag hosiery under the Quaboag brand.

In order to serve the retailers in the United States to whom it sold directly and to whom prompt deliveries were more important than quality or price, the Quaboag Hosiery Company, in 1923, had established a service stock department at the mills. That department was stocked with active styles of finished hosiery in as many as 26 colors and with less active styles in from 3 to 5 colors. The company, after it effected the change from private brands to the Quaboag brand on hosiery sold in the English market, filled orders from English customers from the service stock. By this means the company was able to land goods in England more quickly than English manufacturers could make goods to order and deliver them to the same points. English customs law required that every article of imported merchandise which bore the manufacturer's brand should bear also the name of the country of manufacture. Consequently, the company had the words "Made in the U. S. A." placed on the labels attached to the stockings which went into the service stock.

The London agent of the Quaboag Hosiery Company sold Quaboag hosiery to a limited number of wholesalers. He endeavored to effect as wide a distribution as possible, but to make sales only to wholesalers who were not likely to cut prices. The Quaboag Hosiery Company made no sales directly to department stores or other retailers in the British Isles. In February, 1925, the company had 63 active accounts in the English market. The relations between the Quaboag agent and the wholesalers who bought Quaboag hosiery were of the best and the company valued that goodwill highly.

The Quaboag Hosiery Company's prices to English wholesalers were in terms of sterling and included the mill prices plus all transportation and other charges incident to making delivery in London. The terms extended to English customers were 2½% 10 days, net the tenth of the following month. Bills for goods delivered after the twentieth of the month became net the tenth of the second month following. In Exhibit 3 are shown typical mark-ups by English wholesalers and retailers of Quaboag hos-

EXHIBIT 3
TYPICAL MARK-UPS OF QUABOAG HOSIERY IN THE ENGLISH MARKET, 1924

Manufacturer's Price per Dozen Pairs	Wholesaler's Price Per Dozen Pairs	Retailer's Price Per Pair
28*s* 6*d*	34*s* 11*d*	3*s* 11*d*
15*s* 6*d*	18*s* 11*d*	2*s* 6*d*
14*s*	16*s* 11*d*	1*s* 11*d*

iery. The first example is that of the stocking which sold in the United States for $1 a pair. The wholesalers' mark-up on that article was 18% on the selling price, and the retailers' mark-up, 26% on the selling price.

In the case of women's hosiery, the buying motives of English consumers were substantially the same as those of American consumers. Within the decade 1914 to 1924, a large proportion of the women in England, as well as in the United States, had come to demand high-priced silk stockings in many colors in preference to low-priced, durable cotton or lisle stockings. Most of the colors popular in the United States were popular in the English market at about the same time. The one important difference in consumer demand for women's hosiery in the United States and in the British Isles was that in the British Isles only two sizes were in demand, 9 and 9½. The women in the British Isles did not recognize the advantages in comfort and economy of a close fit. This limitation of the demand to two sizes made it unnecessary for the company to place all sizes in service stock in anticipation of English orders.

The English buying season came during the latter part of the year. The colors which were most stylish in women's hosiery were different from year to year, and usually it was not known until early spring what colors were to prevail during that year. Most of the hosiery ordered by English customers was shipped before the colors which were to be popular during the approaching season were known. The company, in the past, had sold hosiery to its English customers in the fall for spring delivery on the basis of the colors which were in vogue during the year in which the orders were received; that is, during the season preceding that in which the hosiery was to be retailed. That method had

been satisfactory on the whole, although there had been occasional complaints. In some cases, a color was known by different names in England and in the United States. It was then necessary to print the English name on the label which was attached to each pair of stockings. In December, 1924, about three months earlier than it usually was in possession of such information, the Quaboag Hosiery Company knew what colors were to be stylish during the 1925 season. The company, therefore, was able to fill the orders which it received from English customers in the latter part of 1924 for delivery in the spring of 1925, with hosiery of the colors which would be popular at the time of delivery.

In the last 5 months of 1924, English customers placed orders with the Quaboag Hosiery Company for 117,595 dozen pairs of stockings, most of which were for delivery in the spring of 1925. The company sold those stockings at fair market prices which were satisfactory both to the company and to the customers. At the time that the prices were fixed, the exchange value of the pound sterling was figured at $4.40.

By February, 1925, while the greater part of the orders received late in 1924 were yet undelivered, the exchange value of the pound sterling had risen to $4.80. Since the hosiery was to be paid for in sterling upon delivery in London, the Quaboag Hosiery Company would realize an extra profit of about 9% on the hosiery which it had not yet delivered on the orders of its English customers. Many of the English wholesalers who had ordered Quaboag hosiery expressed fear that, because of the appreciation of the value of exchange, the manufacturing company would reduce its prices to English customers. If it did so, English wholesalers who had not placed orders would be able to purchase Quaboag hosiery at lower prices than those paid by wholesalers who already had ordered. No figures were available as to the quantity of Quaboag hosiery which the English wholesalers had on hand, nor could such figures be obtained. If the Quaboag Hosiery Company maintained its prices, American competitors, by quoting lower prices, were likely to secure a number of its English customers. For the Quaboag Hosiery Company to maintain prices, therefore, would endanger its position in the English market, unless it could meet American competition in some way. If that could be done, the maintenance of prices

would tend to strengthen the English market for Quaboag hosiery.

The Quaboag Hosiery Company never had advertised the Quaboag brand to any extent in the English market. What advertising the company had done had been in the form of announcements. The Quaboag brand had been entirely unknown to English consumers until 1924. Since that time, although all Quaboag hosiery sold in the English market had been under the Quaboag brand, the brand name had not been advertised to consumers. The company wished to advertise the Quaboag brand in the English market and to establish a consumer demand for Quaboag hosiery on a quality basis. Sales in past years, and especially the orders received for 1925 spring delivery, encouraged the company in believing that it could build up a substantial market in the British Isles for hosiery bearing the Quaboag label.

If a definite consumer demand was established for Quaboag hosiery in the English market, it seemed likely that retail prices for that hosiery could be maintained at a higher level than the prices of competitive hosiery. In that case, the company would be relieved of the necessity of reducing wholesale prices on its lines in order to meet competition. Furthermore, by maintaining prices, the company would retain the goodwill of its English customers who had bought before the rise in exchange.

The company tentatively decided to conduct an advertising campaign designed to establish a consumer demand on a quality basis for Quaboag hosiery in the English market. For the campaign, the company planned to appropriate $25,000 of the profits it would receive because of the rise in the exchange value of the pound. The company spent $2,500 in a preliminary survey of the market to determine the best advertising mediums to use. The survey was made by an English advertising agency working under the direction of the advertising agency which placed the advertising of the Quaboag Hosiery Company in the United States.

As a result of the preliminary survey, the company tentatively decided to advertise in but one medium, the *London Daily Mail,* which had a circulation of 1,500,000. The English market was relatively compact, and the wide circulation of the *London Daily Mail* in that market made that medium seem preferable to magazines. The company decided to use in the English campaign, with minor alterations, the same pictorial advertisements which

were being used currently in the United States, or which had been used there recently. The copy was to be changed, however, because the company believed that a different type of copy would be more effective with English customers. Style, which had been the principal appeal in Quaboag advertisements in the United States for the preceding two years, was to predominate in the English advertisements also.

The amount which the company planned to spend in the English advertising campaign in 1925 was 3% of that year's estimated sales in the English market. Subsequently, if the exchange ratio became stabilized so that the company would make only a normal profit on orders from English customers, the Quaboag Hosiery Company would be faced with the problem of whether or not to continue to advertise in the English market. The executives of the company were of the opinion that, with only a normal profit, the company could not afford to spend 3% of estimated sales for advertising.

The executives of the Quaboag Hosiery Company believed, however, that the company would be able to maintain its brand in the English market with comparatively little effort and expense, once the brand was established there. If the company succeeded in establishing Quaboag hosiery in the English market on a higher price level than the hosiery of American competitors, the careful selection by the Quaboag Hosiery Company's London agent of the wholesalers to whom he sold and the cordial relations between the agent and the wholesalers favored the maintenance of prices by the wholesalers.

Commentary: The issue raised here is whether in 1925, in the face of the rise of sterling toward parity, sterling price quotations on the company's hosiery exported to England should have been maintained and the increased profits resulting from the exchange advance devoted to an intensive advertising campaign of the company's branded product in order to create consumer demand at a standard price for a quality product.

The rise in sterling exchange made some adjustment necessary. Either prices should have been lowered, or the company's brand so exploited as to maintain the old prices even when the general price level in England was falling. Since it was in accord with the company's policy in the United States to eliminate private brands for the establishment of its own company brand, the company considered the time

opportune to create a consumer demand in England for Quaboag products by a campaign of advertising, thus making a reduction of prices unnecessary. It was thought, also, that the maintenance of the sterling price would protect the wholesalers who already had bought hosiery.

There are two chief reasons for believing that the Quaboag Hosiery Company was not justified in maintaining prices in England in 1925.

First, the rise in British exchange in 1924 and 1925 did not appear to be a phase of the ordinary fluctuation of exchange. Great Britain in 1925 was definitely headed toward a return to parity of exchange and the reestablishment of the gold standard. No one, of course, could safely predict in early 1925 that this would be the outcome. It is evident, however, that the executives of the Quaboag Hosiery Company expected such a result, since otherwise the additional profits on exchange, which they were considering for use in an advertising campaign, would have been looked upon as only temporary. Had this been only a temporary rise, the issue would not have been raised. Exchange had all but reached par, and it was to be expected that the rapid advance of the pound from $4.40 to $4.80 would soon be halted at or near par.

If it was assumed that such was the significance of the rise of sterling in 1924 and early 1925, then it was to be expected that the general price level in Britain would be readjusted to the gold standard; that is, that sterling prices would fall. It would be imperative, therefore, for the Quaboag Hosiery Company to adjust its own prices, first made when exchange was greatly depreciated, to the new conditions. The company could not expect to hold out against a decline in general price levels. Under such conditions, an adjustment of prices by the Quaboag Hosiery Company would be meeting adjustments in British currency, not actually a failure to maintain prices. In fact, to maintain the old prices when exchange reached par would be equivalent to an advance in prices.

Furthermore, if the company had to depend upon profits made by exchange to inaugurate and maintain its campaign for establishing the Quaboag brand, that dependence was evidence of the weakness of the plan. The decision to advertise and establish its brand in England should have rested upon the merits of the plan as a merchandising policy, not upon a temporary advantage resulting from an advance in exchange rates.

This leads to the second reason for believing that the proposal to sustain prices was unsound. It is doubtful if the Quaboag merchandise is the type of goods for which the consumer demand can be developed, on a quality basis alone, through advertising of the company's brand. Women's medium-priced style hosiery must sell on the basis of price

as well as of style. It is a "shopping good." This being the case, it seems unlikely that the advertising of the Quaboag brand would be successful in maintaining prices above the general level. Competition, both of other American companies and of English makes of hosiery, and of Continental style hosiery, could hardly be met at materially higher prices. At competitive prices only would Quaboag hosiery be likely to hold and increase its position in the market, not at materially higher prices. There would seem to have been nothing to prevent English customers from placing orders directly in the United States with the Quaboag Hosiery Company itself or with its competitors if sterling prices were maintained out of line with gold prices in the United States. Furthermore, the company faced the possible competition of hosiery mills established in England by American concerns.

It is stated in the case that maintenance of prices was necessary for protection of the company's selected wholesalers. It was, of course, necessary that they should be protected and their goodwill maintained if prices were lowered. This might have been done in other ways than by maintenance of the price level; for example, by a rebate to the wholesalers who had early placed their orders.

If the Quaboag brand was to be established in England, it should, because of the nature of the product, have been upon both a style and a price basis. For the hosiery as a branded product it was desirable that a stable price be established and maintained. In view of the fact that in early 1925 a readjustment in general price levels in England was to be expected as the pound approached par and reestablishment of the gold standard was effected, the Quaboag Hosiery Company should have sought an early adjustment of prices to the new economic conditions. Maintenance of prices was justified neither from the point of view of the financial and exchange conditions, nor from a purely merchandising point of view. In fact, the economic situation in England required downward price adjustments, rather than price maintenance, and the character of Quaboag products gave no basis for an exception in its case. Under the conditions, price maintenance would have been equivalent to price increase, and price increase in 1925 would hardly have been possible for the type of merchandise sold.

June, 1926 G. B. R.

Gustavus Camera Company[1]

MANUFACTURER—PHOTOGRAPHIC SUPPLIES

Sales Planning—*Factors Included in Constructing Index of Potential Demand.* A company manufacturing camera and photographic supplies wished to measure the sales possibilities of the several states for cameras and films for amateur use for comparison with actual sales as a guide for the direction of sales effort. After some experimentation, the company constructed an index of potential demand by ranking the states with respect to the factors of income, average income per literate white, luxury and pleasure expenditures, passenger automobile registration, magazine circulation, interest in education, proportion of dwellings served with electricity and telephones, scenery and resorts, foreign-born population, and rural population. The values for the states, by factors, then were converted into relatives of their medians, with each factor given equal weight.

(1921)

The Gustavus Camera Company manufactured many kinds of camera and photographic supplies, which it sold throughout the United States. The sales department tabulated sales data for the several lines of products by distributors, by cities, and by states. From these figures, it made comparisons of sales for the current year with those of preceding years. Because, however, it ignored the factor of potential demand, which differed widely in different localities, the executives were not satisfied with this test of sales effort. They believed that for the several lines there should be established measures of potential demand, with which to compare actual sales and by which to direct efforts towards increased sales in states and cities where the comparison showed sales to be disproportionately low. It was decided, therefore, in 1920, to undertake a market survey for the amateur line of products, consisting of cameras and films, which the company sold to retailers of photographic supplies, sporting goods, jewelry, optical goods, books, stationery, and drugs. The statistical department was instructed to proceed with this study.

Although it would be desirable to obtain measures of the potential marketing possibilities of cities so as to localize maladjustments of actual sales and give point to increased sales effort, it

[1] Fictitious name.

was apparent that, because of the greater ease of obtaining data concerning them, the problem should be approached through a study of the states. A great deal of pertinent information was readily available for states, but it was relatively difficult to obtain comparable information for cities. The problem would be simplified, furthermore, by the smaller number of states, which would permit changes in construction until a satisfactory method could be obtained. The statistician decided, therefore, to limit his study to the several states, which, including the District of Columbia, would represent 49 sales territories.

It was evident that information regarding the prosperity of the people in each state and regarding their spending habits would be necessary. What data should be selected for this purpose, however, and how they should be constructed into an index of purchasing power which would serve as an index of sales possibilities was not so evident. It was necessary to analyze the problem to determine its elemental parts and to study the available data to find out what could be obtained readily.

Total population would be a useful factor in determining potential sales of a necessity, but it would be an unsound measure of sales possibilities of cameras, a product whose selling price ranged from $2 to $70. It was believed, however, that the racial composition of population would have bearing on the question; accordingly, data for foreign-born population were obtained, because such people, in general, could not be considered prospective customers. The distribution of population also seemed to be an element of significance; people living in rural districts probably would not be so likely to purchase cameras as those living in towns and cities. The proportions of population living in rural districts and in towns of less than 2,500 inhabitants were chosen, therefore, as a measure of this adjustment. These data on population were obtained from the latest census reports.

It was thought that income tax returns, which, by Federal law, must be filed by all persons having net incomes of $1,000 or over, should be an excellent measure of purchasing power for such a product as cameras. The number of these returns, by states, was procured from the annual report of the Internal Revenue Division of the United States Treasury Department.

The owners of passenger automobiles were, in general, potential users of amateur photographic supplies; hence, the automo-

bile registration by states would be an indication of their importance as markets. These data were obtainable from lists which were published by commercial agencies and republished from time to time by secondary sources.

It also was believed that sales of cameras varied directly with the excellence of general education; that is, the product was thought to appeal to people in proportion to the amount of intellectual training received. The difficulty was to measure the standard of education, but it was decided finally that suitable data would be (1) the amounts of expenditures for public schools, (2) the circulation of magazines, and (3) the degree of illiteracy. The first and last were obtainable from census reports; the second could be obtained from trade publications in the advertising field.

Since many sales were made to vacationists, an attempt to measure the potentiality of this market was made. It was suggested that the number of tourists going abroad from each state could be obtained from the records of the number of passports issued by the United States Department of State at Washington, as passports then were required by all foreign countries. Because, however, the passports continued in force for two years, and hence the record would not register current activity of travel, this series was discarded as unreliable. An attempt to obtain figures from steamship companies showing the numbers of passengers from different states also was found to be impracticable. It was decided to measure this element of the potential market by the attractions within each state, such as natural scenery and travel resorts, which could not be measured by data but could be estimated by the judgment of persons familiar with conditions.

After the selection of the foregoing factors, it was recognized that it would be necessary to introduce a general factor to compensate for the different densities of population in the several states. It was believed that, if all the selected factors were equal for two states but one of them contained a greater population than the other, the former would have greater value as a potential market than the latter. Rather than to attempt adjusting the combined results obtained by the use of the data in their original forms, it was thought better first to make individual adjustments in the data themselves. Furthermore, this method would be necessitated by the fact that for some of the factors the original forms of the data were their final forms and thus were not sus-

ceptible to such uniform treatment; the adjustment would have to be confined to those factors to which it properly could be applied. Analysis of sales records showed that sales actually had varied, as among the states, in rough conformance with the white population contained therein; the adjusting factor selected, therefore, was the unit per 1,000 whites in each state. Numerical data of the factors which should be adjusted then were expressed in terms of this unit.

To summarize results, the following factors for each state were included in the study:

1. *Income.* This factor consisted of the number of persons who reported net incomes over $1,000, and was expressed in terms of 1,000 whites.

2. *Automobiles owned.* This factor consisted of the number of automobile registrations per 1,000 whites.

3. *Education.* This factor was composed of three elements:
   (*a*) Public school expenditures per 1,000 whites
   (*b*) Circulation of magazines per 1,000 whites
   (*c*) Number of illiterates per 1,000 whites

4. *Scenery and resorts.* Information was gathered from guide books and from persons who had traveled widely, and the states then were ranked by four executives who were familiar with conditions.

5. *Foreign-born population.* This factor consisted of the proportion of foreign-born inhabitants in the total white population.

6. *Rural population.* This factor consisted of the proportion of the total white population living in towns of less than 2,500 inhabitants and in rural districts.

The states then were ranked from 1 to 49, according to each of these 6 factors, beginning in each case with the state having the most favorable market with respect to that factor. These rank numbers became the ratings for each state. Thus, the state with the largest number of automobile registrations per 1,000 whites was rated 1 because it ranked first, and that with the smallest number was rated 49 because it ranked last.

To obtain a composite rating which should reflect the influences of the several factors, it was decided to weight the factors according to their importance. The weighting chosen, based on the judgment of nine executives, is shown in Exhibit 1.

From the rating by rank in each of the six factors and the weight attached to each factor, the index of purchasing power for each state was computed. This figure became the index of poten-

Exhibit 1

Weighting of Factors Used to Rate States in Market Survey of Gustavus Camera Company

Factors	Weights
1. Income	45%
2. Automobile Registration	15
3. Scenery and Resorts	15
4. Education	10
5. Foreign-Born Population	10
6. Rural Population	5
Total	100%

tial demand. The example shown in Exhibit 2, in which fictitious figures have been used, shows how the indexes were constructed.

The states then were ranked according to these indexes, and were assigned the numbers of their ranks, from 1 to 49, beginning with the most favorable, which obviously was the one with the lowest index. California, with the lowest index, indicating the highest potential purchasing power, was ranked first and given the number 1; Arkansas, which had the highest index, hence the lowest potential purchasing power, was ranked last with number

Exhibit 2

Example of Gustavus Camera Company's Computation of Indexes of Purchasing Power

	Factors												Index Numbers
	(1) Income		(2) Automobiles		(3) Scenery		(4) Education		(5) Foreign Born		(6) Rural		
Weights....	45		15		15		10		10		5		
Ohio													
Ratings..	5		1		4		2		10		16		
x weights..	225	+	15	+	60	+	20	+	100	+	80	=	500
Indiana													
Ratings..	14		8		40		39		2		40		
x weights..	630	+	120	+	600	+	390	+	20	+	200	=	1,960
Michigan													
Ratings..	8		6		3		20		11		20		
x weights..	360	+	90	+	45	+	200	+	110	+	100	=	905
New York													
Ratings..	2		2		5		8		48		5		
x weights..	90	+	30	+	75	+	80	+	480	+	25	=	780

49. The final rank numbers ascertained thus for the several states then were marked on an outline map of the United States; each figure from 1 to 49 was placed on the map under the name of the state to which it applied.

Sales of the company by states then were expressed in dollars per 1,000 whites. After the states had been ranked in accordance with these figures, beginning with the highest sales, each state was assigned its corresponding rank number. Then, on another outline map, these rank numbers were recorded under the names of their respective states.

A comparison of the two maps was intended to show whether sales in each state were as large as the purchasing power index indicated that they should be; in other words, a study of the data recorded on the two maps would show whether low sales could be accounted for by low purchasing power or whether other causes were operating.

It was believed, however, that this index, and its method of use, could be improved. In 1921, therefore, a complete revision was made. The following 10 factors were employed in the revised index.

1. *Income.* As before, income consisted of the number of income tax returns of net incomes over $1,000 as reported in *Statistics of Income, 1920,* compiled by the Internal Revenue Division of the United States Treasury Department. This factor was open to objection as a measure of potential buyers because many people who made no income tax returns used cameras and films. Notable examples were members of the working classes, who were logical prospects for the sale of less expensive cameras, and farmers, whose income tax returns bore little relation to purchasing power, as compared with persons in other occupations.

2. *Average income per literate white 10 years of age and over.* The data for this factor were obtained from *Distribution of Income by States,* published by the National Bureau of Economic Research, which had made an exhaustive study of amounts and sources of incomes, such as wages and salaries, manufactures, crops, and animal products. The amounts of income were divided by the numbers of literate whites 10 years of age and over in their respective states, as reported by the United States Bureau of the Census.

3. *Expenditures for luxury and pleasure.* The third factor was intended to be an indication of consumers' spending habits. The data were derived from special Federal taxes, then in force as part of the system of taxation imposed for war revenue. Four taxes were considered: (1) taxes on admission to places of amusement, such as theaters, concerts, and clubs; (2) so-called "luxury taxes" on such articles as jewelry, watches, carpets, sculptures, and perfumes; (3) taxes on passenger automobiles for hire and on the use of yachts; (4) taxes on telegraph and long-distance telephone messages. Subsequent study disclosed that since the majority of telegrams and toll calls arose in commercial transactions, in general they did not represent expenditures for pleasure or luxury; hence this tax was omitted from the figures. The other three series were combined into a single series to represent this factor.

4. *Passenger automobile registration.* As in the earlier index, this factor was intended to be a measure of the number of persons who would be potential users of cameras. It was not considered wholly satisfactory, however, since owing to the smaller percentage of automobile ownership in cities as compared with rural districts, urban states would be underestimated. These data were secured from *Automotive Industry,* a trade paper; they also were published in the *World Almanac.*

5. *Magazine circulation.* This factor was the same as before, but it was separated from the factor of education. It was believed that the analysis by states of the distribution of 770 magazines and farm papers, with a combined circulation of more than 87,000,000, would give a fair estimate of the extent of general reading and would be an accurate measure of the relative number of people to whom cameras were of interest. The data were secured from the *Standard Rate and Data Service.*

6. *Interest in Education.* This factor was based upon the public expenditures for education, which indicated the school facilities offered, and also upon the relation of the average daily attendance at school to the total number of children between the ages of 5 and 18. Data for the former were obtained from the *Statistical Abstract of the United States;* data for the latter were obtained from special bulletins of the Bureau of the Census on school attendance.

7. *Proportion of dwellings served with electricity and telephone.* This factor indicated the use of modern conveniences. The disadvantage to which many farming sections were put by the absence of electric service did not render this an unfair index of their purchasing power with respect to their purchases of cameras, because inaccessibility would have a similar effect on expenditures. The data on electricity were obtained from the *Electrical World,* a trade paper; those for telephones were secured from reports to the American Telephone and Telegraph Company. By the use of census reports, the figures by states were reduced to the basis of "per dwelling."

8. *Scenery and resorts.* As for this factor in the earlier index, the states were ranked from 1 to 49 upon the judgment of several executives who were familiar with conditions in the different states.

9. *Foreign-born population.* These data were transcribed directly from the *United States Census Reports.*

10. *Rural population.* As in the earlier index, this factor consisted of the percentage of rural population to total population. Although a supplementary study showed that farmers had the ability to buy, because their net wealth per capita was found to be high in comparison with other classes of people, it was felt that their relative inaccessibility to the more progressive urban stores would reduce the possibilities of selling cameras to them.

Each of these factors, except 2, 7, and 8, whose ratings already were final, was reduced to a basis of 1,000 whites. All states then were arranged in order of magnitude of ratings by each factor, and each rating was expressed as a relative of the median for its factor. In other words, as the value of the median item for each factor was considered to be 100, the rating of each state for that factor was expressed as a percentage of the median. Exhibit 3 illustrates how the rankings for factor 1, incomes, were computed.

It then was necessary to combine the rating for each of the 10 factors into a composite rating for all of them. To do this, the ratings for the several factors would have to be so arranged that the significance of the ratings would be consistent. Thus, a high rating for incomes would mean a favorable market, but a

EXHIBIT 3

COMPUTATION OF RANKINGS FOR FACTOR 1 IN MARKET SURVEY OF GUSTAVUS CAMERA COMPANY

State	No. of Income Tax Returns over $1,000*	White Population† (*in 1,000's*)	Tax Returns per 1,000 Whites	Ranking
Alabama	52,984	1,447	36.6	53.0
Arizona	24,812	291	85.3	123.6
Arkansas	38,113	1,280	29.8	43.2
California	396,973	3,265	121.6	176.2
Colorado	74,198	924	80.3	116.4
Connecticut	148,195	1,359	109.0	158.0
Delaware	18,937	193	98.1	142.2
District of Columbia	69,730	327	213.2	309.0
Florida	42,210	638	66.2	95.9
Georgia	73,325	1,689	43.4	62.9
Idaho	25,755	426	60.5	87.7
Illinois	542,467	6,299	86.1	124.8
Indiana	189,587	2,849	66.5	96.4
Iowa	183,398	2,384	76.9	111.4
Kansas	99,255	1,709	58.1	84.2
Kentucky	78,258	2,181	35.9	52.0
Louisiana	69,340	1,097	63.2	91.6
Maine	47,717	766	62.3	90.3
Maryland	148,000	1,205	122.8	178.0
Massachusetts	401,770	3,804	105.6	153.0
Michigan	305,075	3,602	84.7	122.8
Minnesota	154,118	2,369	65.1	94.3
Mississippi	28,022	854	32.8	47.5
Missouri	162,199	3,225	50.3	72.9
Montana	45,557	534	85.3	123.6
Nebraska	97,729	1,279	76.4	110.7
Nevada	10,381	71	146.2	211.9
New Hampshire	35,983	442	81.4	118.0
New Jersey	296,989	3,037	97.8	141.7
New Mexico	13,656	335	40.8	59.1
New York	1,047,634	10,172	103.0	149.3
North Carolina	47,342	1,784	26.5	38.4
North Dakota	24,209	640	37.8	54.8
Ohio	447,998	5,572	80.4	116.5
Oklahoma	81,785	1,821	44.9	65.1
Oregon	67,640	769	88.0	127.5
Pennsylvania	672,746	8,433	79.8	115.7
Rhode Island	53,128	594	89.4	129.6
South Carolina	33,044	819	40.3	58.4
South Dakota	34,670	619	56.0	81.2
Tennessee	65,054	1,886	34.5	50.0
Texas	224,617	3,918	57.3	83.0
Utah	30,510	442	69.0‡	100.0
Vermont	19,205	352	54.0	78.3
Virginia	92,576	1,618	57.2	82.9
Washington	148,067	1,320	112.2	162.6
West Virginia	96,326	1,377	70.0	101.4
Wisconsin	150,452	2,617	57.5	83.3
Wyoming	24,594	190	129.4	187.5

*Source: *Statistics of Income from Returns of Net Income for 1920*, Treasury Department, United States Internal Revenue, p. 2.

†Source: *Abstract of Fourteenth Census of United States*, p. 98.

‡Median item.

high rating for foreign-born population would mean an unfavorable market. It was necessary, therefore, to decide whether high or low potential values should be indicated by high ratings, and then to apply this rule consistently to all factors. Since high ratings are associated customarily with favorable conditions, this was the natural choice; consequently those ratings which had opposite significance were reversed by means of a simple arithmetic process of subtracting each rating from the sum of the highest and lowest rating. Suppose, for example, that in the series, 12, 9, and 3, the values are to be inverted. The sum of the largest and smallest items is 15. Subtracting each item from this sum yields the following series: 3, 6, and 12. Obviously, these values are equivalent to the first series, but in reverse order.

It was decided to give equal weights to the several factors, so that the final composite index for each state was computed as the simple arithmetic average of the rating of the 10 factors.

This process produced a definitive rating for each state, indicating its composite value as a potential market according to the elements selected as factors. These ratings could be compared with the actual sales per 1,000 whites, expressed in terms of their median. It was believed that this comparison would show in which states sales efforts should be pushed in order to attain the volume indicated as possible.

COMMENTARY: The case illustrates an attempt by a manufacturer and distributor of a semi-luxury to evaluate potential demand for the product in the various states.

This evaluation of demand was to be used in judging the adequacy of sales volume by states. Because the index was based on data external to the company, it was free from influence of past inadequacies in sales performance.

The two attempts to measure potential demand as described in the case differed in the following respects:

The number of series of data included was increased from 8 in the first index to 10 in the second index. This change was not of fundamental importance, and it must remain a matter of opinion as to whether the addition improved the quality of the index.

The method and influence of weighting was changed. In the first index, factors relating to ability to buy as measured by income were given a weight of 45%; combined factors relating to ability to use were given a weight of 55%. (See Exhibit 1 of the case.) In the sec-

ond index, no explicit weights were applied as in the first index. Weighting was introduced in the second index, however, by including more series measuring one factor than another. Thus three series of data, namely, Number of Income Tax Returns over $1,000, Average Income per Literate White over 10 Years Old, and Luxury Taxes, might be considered as measures of ability to buy. The remaining seven factors apparently were intended to measure ability to use. Since all factors were weighted equally, the choice of factors resulted in ability to buy having a weight of 30% and ability to use one of 70%. The net change of weighting between the first and second indexes was, therefore, to reduce the importance of factors measuring buying ability from 45% to 30%, and to increase factors measuring using ability correspondingly from 55% to 70%.

The method of reducing the various series of data to a common unit was changed. In the first index, the method of simple or qualitative ranking was used, whereby the states were listed in order of excellence with reference to a given factor and merely numbered 1, 2, 3, and so forth to 49, the best state being numbered 1. The advantage of this method is its ease and simplicity; the disadvantage is its failure to reflect varying differences between states. In Number of Income Tax Returns over $1,000 (Exhibit 3 of case), New York, for example, is highest with 1,047,634, Pennsylvania is next best with 672,746, and Illinois is third with 542,467. These would be ranked 1, 2, and 3. The difference between New York and Pennsylvania is 374,888; the difference between Pennsylvania and Illinois is 130,279; yet so far as indicated in the rankings, these two differences are equal. This weakness was overcome in the second index by the use of relative numbers which reflected quantitative differences between states. Each state was expressed as a percentage of the middle or median state. The highest, lowest, or any other state could have been selected equally well as the base, or 100%, provided the corresponding base were used for all the factors.

Thus, the two important changes between the first and second indexes were the change in weighting or emphasis and the change in the method of reducing series of data to a common unit.

An inconsistency may be noted in the method of introducing certain factors into the index. It apparently was reasoned that negroes as a class would not be good potential customers. In reducing data measuring the various factors to a per capita basis, accordingly, the white population only was used. Later, it was desired to modify the index with reference to foreign-born population and rural population. These were introduced as independent factors. It would have been reasonable to reduce all the data to a per capita basis by dividing by native-born,

urban, white population. This method would have saved computations, simplified the results, and consistently eliminated figures for negroes, the foreign-born, and the rural population.

It is pertinent to inquire how the final index was used and how nearly the index attained the required objective of measuring "sales possibilities." At the end of the case it was stated:

> These ratings [the second index] could be compared with the actual sales per 1,000 whites, expressed in terms of their median. It was believed that this comparison would show in which states sales efforts should be pushed in order to attain the volume indicated as possible.

The difficulties attending this comparison and the limitations of the index should be recognized. To illustrate its application, assume the following data, in which fictitious figures have been used for illustration.

Gustavus Index of Demand (*In percentage of median*)		Actual Sales per 1,000 Whites Three-Year Average (*In percentage of median*)	
Massachusetts	125%	Massachusetts	135%
Iowa*	100	Indiana	100
Kentucky	85	Iowa	94
		Kentucky	63

*Median.

Just what interpretation of these data can be made? Is it fair to say that Massachusetts represents a 25% better market than Iowa? Obviously not, because the quantitative element of population was removed by reducing all data to terms of 1,000 whites. It is reasonable to state, therefore, only that the quality of the residents of Massachusetts as potential purchasers of cameras and camera supplies is 25% better than the quality of Iowa residents in that respect.

Is it reasonable to say that Massachusetts is overdeveloped because its actual sales register 135% and its potentialities only 125%? Obviously not, because the base is different in the two cases. Even if the base were Iowa in each case, it would be more reasonable to state that Iowa is underdeveloped than that Massachusetts is overdeveloped. It is obvious, further, that the scatter of the states from their median in the two cases is likely to vary considerably. In so far as this takes place, absolute comparisons are of little avail.

What interpretations of the index are justifiable? First, a list of states placed in order of magnitude on a potential demand basis compared with a list of states placed in order of magnitude on an actual

sales basis would indicate which states were out of line or out of place in sales development. Such a comparison would throw little light on the extent of the discrepancy. Second, if a temporary, quantitative estimate of potential sales is required, it may be obtained by selecting the best developed state as a standard of comparison. This selection would be an act of judgment; it would be based on consideration of such elements in the various states as the caliber and permanency of sales force, the sales per man, the number of men, the conditions of competition, and the duration, amount, and type of sales effort put into the state. The reasoning then would be that, if as good a selling job were to be done in all states as in the selected state, the management would be satisfied for the time being. A temporary potential measure in dollars then might be set up as follows. Fictitious figures have been used for illustration.

Gustavus Index of Potential Demand	Actual Sales per 1,000 Whites Three-Year Average	Temporary Standard of Comparison Based on Kentucky
Massachusetts............125%	$185	$309
Iowa....................100	215	247
Kentucky................ 85	210	210

According to these figures, additional sales effort expended in Massachusetts would yield more returns than in Iowa. Of course, the relative populations and the conditions of competition also would be factors in the decision.

The possibilities of misinterpreting and misusing measures of potential demand are fully as great as the possibilities of error or bias in making the measures. Obviously, studies of markets are of more value when made in terms of smaller geographic units such as counties or cities. In these more detailed studies, problems similar to those met in this study based on data by states are encountered.

April, 1927 D. B. S.

Selkirk Brass and Copper Company[1]

MANUFACTURER—BRASS AND COPPER PRODUCTS

Sales Analysis—*Determination of Method.* A company manufacturing brass and copper sheets and tubes, which were sold directly to large consumers and to wholesalers, desired to devise a method of current analysis of sales in order to develop the market more uniformly and to direct better the efforts of the sales force. It was necessary to determine what type of information was necessary, the detail in which such information should be kept, and the feasibility of using a card sorting and tabulating machine in the analysis.

(1923)

The Selkirk Brass and Copper Company manufactured brass and copper sheets and tubes. The company was capitalized for approximately $12,000,000; it sold its products in all parts of the United States. The articles manufactured by the company were sold directly to wholesalers and to manufacturers who bought in large quantities. Sheeting and tubing were used in almost all industries which manufactured metal products.

A rough analysis of sales in 1922 indicated the following distribution of the company's products among industries.

	Sheets	Tubes	Total
Automotive	5.2%	1.0%	6.2%
Building:			
General	3.3	0.9	4.2
Plumbing	4.7	12.2	16.9
Electrical	2.7	1.2	3.9
Household appliances	0.7	0.8	1.5
Hardware manufacturing	1.4	0.6	2.0
Miscellaneous	28.9	8.6	37.5
Wholesalers	15.0	12.8	27.8
Total	61.9%	38.1%	100.0%

About half the orders received specified standard products; the remainder specified slight modifications in the products to suit the peculiar needs of customers. Small stocks of products in standard sizes were maintained in finished or semifinished state to provide prompt service on emergency orders, but no

[1] Fictitious name.

attempt was made to carry stocks adequate to fill the larger orders.

No branch houses or warehouses were operated. Twenty-five salesmen, most of whom were men of long service with the company, sold within definite territories, calling upon both wholesale and industrial customers.

Prior to 1923, almost no information was kept by the sales department in a form usable for the direction and concentration of the company's sales efforts. The management realized that it needed more information concerning territories and towns in which the company's products were sold. It recognized that some towns did not consume enough of the company's products to justify the sales efforts expended in such localities. On the other hand, the management was aware that there were other communities in which the company should pursue a more aggressive sales policy. Before 1923 the only information kept had consisted of the customer's credit standing, his purchases, and any remarks made about him by the salesman in letters to the sales manager.

In January, 1923, a young man employed from outside the sales department was selected as sales statistician to develop a system of sales analysis adequate for the needs of the sales department.

The first step taken by the sales statistician was to determine what available information might be of value to the sales department. The records of the cost department provided one valuable source for data. That department punched Hollerith cards,[2] illustrated in Exhibit 1, to indicate the following information, taken from bills to customers: the date of shipment of the goods, the department from which they were shipped, the customer's code number, the dimensions, finish, and alloy of the material, the weight and value of the product, and the freight

[2] The Hollerith system is a mechanical method of tabulating voluminous data. Information is entered on cards by punching holes according to a predetermined plan under which the positions of the holes represent values or other data classified as desired. Where the attributes are not numerical, code numbers are used by which the qualitative information is reduced to quantitative form. Exhibit 1 shows such a card. The actual cards are closely printed and measure about three by seven inches in size. The punched cards are sorted by classification of data in an electrical sorting machine. The information by classes is then obtained by passing the cards through another machine which accumulates the amounts indicated by the punched holes.

There is another mechanical system called the Powers system which performs a similar service with the same kind of card, but by a little different mechanism.

1 3 5 7 9 11
Month Shipped
2 4 6 8 10 12

Day Shipped	Dept.	Customers	Metal Price	Thin Edge	Thick Edge Width	Gauge or Diameter	Length Inches	Finish	Alloy	Weight	Amount	Freight
00	00	0000	000	0000	000	B&S 0000 SG	0000	00	00	000000	00000	0000
11	11	1111	111	1111	111	1111	1111	11	11	111111	11111	1111
22	22	2222	222	2222	222	2222	2222	22	22	222222	22222	2222
33	33	3333	333	3333	333	3333	3333	33	33	333333	33333	3333
234	44	4444	444	4444	444	4444	4444	44	44	444444	44444	4444
245	55	5555	555	5555	555	5555	5555	55	55	555555	55555	5555
256	66	6666	666	6666	666	6666	6666	66	66	666666	66666	6666
267	77	7777	777	7777	777	7777	7777	77	77	777777	77777	7777
278	88	8888	888	8888	888	8888	8888	88	88	888888	88888	8888
289	99	9999	999	9999	999	9999	9999	99	99	999999	99999	9999

Exhibit 1: Sample of card used by Selkirk Brass and Copper Company in operation of Hollerith System.

charges. The sales department could secure summaries of any of this information merely by running the cards through the sorting and tabulating machine.

The cost of summarizing, in any detail, additional current information secured from orders received, invoices, or shipping records would be excessive unless the information was first entered on Hollerith cards. The statistician decided, therefore, to enter on a Hollerith card such data as would assist most in analyzing sales performance of individual salesmen. He desired, furthermore, to develop some means of judging the thoroughness with which a given territory was being developed in view of its potential possibilities. He expected to obtain information for this purpose from trade directories and from the company's quotation files, where all inquiries for prices were recorded on cards, one for each customer, which showed the date, article, quantity, and price of each quotation.

Commentary: The fundamental need of a company for information about its markets is illustrated in this case. There are two possible means of obtaining such information: first, by analysis of the market through study of factors external to the company; second, by analysis of the company's records, properly classified.

In analyzing markets the attempt usually is to determine the relative possible or potential demand in various localities, with a view to determining whether actual sales are similarly distributed.[3] The prob-

[3] See Gustavus Camera Company, p. 370.

lems of studying markets for consumer and for producer goods are quite different. In the case of consumer goods, exhaustive information regarding the number of persons of specified characteristics is likely to be lacking. Because of the large number of individual consumers, reliance must be placed to a great extent on published data, such as the census. In the case of producer goods, especially semiraw materials such as brass and copper tubes and shapes, the users are less numerous and their needs are more specific. A study of markets in such a case may begin with an examination of "trade directories." Subsequently it will become feasible to obtain, through personal calls by salesmen, information on the needs of individual users.

In analyzing company records, the quotation files should receive early attention. These should yield illuminating facts regarding the type and location of orders that have been lost by the company. An analysis of causes for their loss should be worth while. Next, analysis of actual sales should be attempted. Analysis of sales may be made with either of two purposes in mind—to gain information for use in planning production, or for use in setting salesmen's quotas and in evaluating their performance. Important differences in procedure in the two cases should be recognized. When analyzing sales for use in planning production, past sales should be classified by types of product or by individual products, and the characteristic changes from time to time in sales of the various products should be examined and the causes investigated. When analyzing sales for use in managing the sales force, past sales should be classified primarily by territories and by types of customer, and the characteristic changes from time to time of sales so classified should be examined.[4] In the Selkirk Brass and Copper Company, the problem was of the latter type.

The use of punched card systems in sales analyses is suggested in the case. The cost of such systems is large. It is questionable whether a company other than a large one could afford to acquire such a system for sales analysis alone. On the other hand, if a great amount of detail is to be handled and if numerous summaries are required on different bases of classification, some such system is essential. In punched card systems, the records are in such form that a wide variety of summaries can be obtained on short notice. Two alternatives are open to the small company: first, that of using the tabulating machines for a variety of purposes, such as cost accounting and inventory control, in addition to sales analysis; second, that of punching its own cards but having the sorting and tabulating done at a service bureau which main-

[4] For additional discussion of this point see Donald B. Smith, "Planning Sales for a Manufacturing Company," *Harvard Business Review,* Vol. 5, No. 2, January, 1927, pp. 186-196.

tains machines for such purposes. Service bureaus of this type are available in the larger cities.

The efficacy of high-pressure "pep talk" as a means of providing incentive to salesmen is being increasingly questioned. Desirable substitutes, especially in selling industrial goods, are the presentation of useful facts about past sales, past relations with customers, undeveloped fields, and conditions in important customer industries.

April, 1927 D. B. S.

Thropp Electrical Company[1]

MANUFACTURER—ELECTRICAL APPARATUS

Sales Records—*Comparison of Sales with Development of Industry.* In order to obtain information required to compare total sales of a manufacturer of electrical apparatus with the development of the industry, it was proposed that total sales for 10 years be charted with the kilowatt-hour current generated by all central stations.

Sales Records—*Relation between Components of Total Electrical Production and Sales of Electrical Apparatus.* In order to show the relation between the components of the total electrical production in the United States and the sales of a company manufacturing electrical apparatus, the manufacturer's statistician wished to chart the quantity of current consumed (1) by residential and commercial lighting customers, (2) by industrial companies, and (3) by electric railways, with indexes formed from figures for the products sold by the company to the three groups. After sales of the company had been divided according to products, total lamp sales were chosen as an index for the sale of lighting equipment; the sales of motors were selected as a measure of sales for power equipment; and railway car equipment was to be plotted with current consumed by electric railways.

(1923)

The statistician of the Thropp Electrical Company, in 1923, decided that a method should be chosen by which the company could compare its progress with the growth of the entire industry, and the sales of its groups of products with the total consumption of electrical supplies in the United States. The statistical figures available were: total sales of the Thropp Electrical Company; detailed sales figures by groups of products; total purchases of raw materials by the Thropp Electrical Company, and detailed purchases by groups of products; the total power generated by central stations of the United States, in kilowatt hours; and the quantity consumed, in kilowatt hours, for residential and commercial light, for industrial power, and for electric street railways.

The Thropp Electrical Company was a medium-sized company, manufacturing electrical apparatus which was distributed nationally. In some groups of products the management did not doubt that the company secured its share of orders. In others,

[1] Fictitious name.

EXHIBIT 1

ESTIMATED ELECTRICAL ENERGY GENERATED BY CENTRAL STATIONS OF UNITED STATES, IN KILOWATT HOURS, BY MAIN CLASSES OF CONSUMERS, 1887 TO 1922*

Year	Total Energy Generated (000,000)	Lighting (000,000)	Industrial Power (000,000)	Electric Railways (000,000)	Line Losses (000,000)
1887	175	120	11		44
1892	300	190	30	5	75
1897	995	480	50	15	250
1902	2,337	985	602	100	650
1907	5,861	1,870	1,500	1,160	1,331
1912	11,569	2,752	3,254	3,017	2,546
1914	14,400	3,732	4,061	3,639	2,968
1915	16,175	4,100	5,175	3,900	3,000
1916	21,230	4,900	7,564	4,561	4,205
1917	25,438	5,600	9,599	4,947	5,292
1918	29,880	5,700	13,500	4,960	5,720
1919	35,028	6,200	17,838	4,980	6,010
1920	39,199	6,870	20,154	4,990	7,185
1921	36,878	7,400	17,698	5,000	6,780
1922	45,290				

*Source: *Electric World*.

however, it had failed to increase sales proportionately as the industry expanded. Total sales of the Thropp Electrical Company, in 1923, were approximately $20,000,000.

In order to obtain the information required to compare total sales of the company with the development of the industry, it was proposed that total sales for 10 years be charted with the kilowatt-hour current generated by all central stations, as shown by the figures for total energy in Exhibit 1. The objections to this proposal were that the results were likely to be general and would not indicate the relation between the sales of the different classifications of electrical equipment and the development of that part of the electrical industry which made use of them. The figures for total current generated, in kilowatt hours, were themselves believed to be too general. They contained the line losses,[2] as shown in Exhibit 1, and gave no specific facts relative to the main classes of consumers of current, which were residential and commercial lighting companies, industrial plants, and electric street railway companies.

In order to show the relation between the components of the total electrical production series and the Thropp Electrical Com-

[2] Line loss is current lost in transmission.

pany's sales, the statistician wished to chart the quantity of current consumed by residential and commercial lighting customers, by industrial companies, and by electric railways, with indexes of the products sold by the company to the three groups.

The sales of the Thropp Electrical Company were divided, therefore, according to products, in order to compute the sales indexes to be plotted with the energy figures for the lighting, power, and electric railway groups. Exhibit 2 shows the three classes into which sales were divided for the purpose of forming sales indexes. Total lamp sales of the company were chosen as an index for the sale of lighting equipment; the sales of alternating current and direct current motors were selected as a measure of sales for power equipment; and railway car equipment was to be plotted with current consumed by electric railways.

The figures in Exhibit 1, relating to the total quantity of electricity generated by central stations and the quantities sold for lighting, power, and electric railways, were obtained from the *Electric World*. The figures in Exhibit 2, pertaining to the sales of lamps, of alternating current and direct current motors, and of railway car equipment, were obtained from the records of the company. These data were expressed in dollars; the sales of motors, however, were recorded also in terms of kilowatt-hour capacity.

EXHIBIT 2

SALES OF THROPP ELECTRICAL COMPANY, BY CLASSES OF PRODUCT, 1907 TO 1922

Year	Lamps	A. C. and D. C. Motors		Railway Car Equipment
1907	$1,401,000	$ 1,597,000	116,217 kws.	$1,871,000
1908	1,385,000	952,000	69,809	934,000
1909	1,604,000	1,483,000	107,671	1,489,000
1910	1,946,000	2,143,000	159,000	1,181,000
1911	2,173,000	2,164,000	152,000	815,000
1912	2,309,000	3,095,000	206,000	911,000
1913	2,464,000	3,619,000	237,000	945,000
1914	2,326,000	2,827,000	230,000	604,000
1915	2,378,000	3,496,000	261,000	564,000
1916	3,321,000	6,594,000	269,000	969,000
1917	4,110,000	9,077,000	556,000	902,000
1918	4,851,000	8,998,000	419,000	766,000
1919	5,427,000	11,994,000	475,000	866,000
1920	7,042,000	13,772,000	557,000	1,096,000
1921	5,835,000	3,382,000	207,000	314,000
1922	6,086,000	7,048,000	319,000	1,253,000

An investigation of the value of the figures for central station current disclosed that they were estimated roughly to 1913, were more nearly accurate from 1913 to 1919, and were reliable after 1919. A study of the method followed to compute the quantity of current sold for lighting purposes revealed the fact that the figures prior to 1919 were based, not on central station figures, but on figures for the manufacture of lamps, the series which the statistician wished to plot with the data on current sold for lighting purposes. This basis had been used because central station figures had been incomplete; in order to secure the desired data, estimates had been prepared from information furnished by lamp manufacturers. The statistician hesitated, therefore, to plot these two series together, except for the preceding four years, because the lighting series had been compiled partially from the lamp series.

A complicated situation was presented when an attempt was made to plot the current consumed for industrial power and the total sales of alternating current and direct current motors. Motor sales fluctuated widely; on the other hand, the quantity of power consumed had risen steadily except during the year 1921. Because estimates of the potential capacity of motors sold to consume electricity were available, it was proposed that these data, rather than actual motor sales, be plotted on logarithmic paper with the figures for power consumed. The comparison of the proposed series should be significant, because the figures which represented the capacity of motors sold to consume electricity were cumulative, with the exception of figures for those motors which wore out or were destroyed. The comparison, however, would be between kilowatts and kilowatt hours.

Owners of motors manufactured by the Thropp Electrical Company probably operated their machines as many hours per day as owners of other makes. If the cumulative capacity in kilowatts of Thropp Electrical Company motors in service increased more rapidly than the kilowatt hours of industrial power delivered by central stations, therefore, the assumption could be made that the rate of expansion of the Thropp Electrical Company's motor sales was proportionately greater than that of the industry as a whole.

The life of a motor had been estimated roughly to be 20 years. The following method was suggested to remove from the series

the power-consuming capacity of motors not in use. If the first date which appeared on the chart was 1907, the kilowatt capacity of motors sold prior to 1888 should be subtracted; for 1908 the capacity of motors sold previous to 1889 should be removed.

The value of comparing cumulative series with actual figures was questioned, because the cumulative series never declined and because each additional unit in a cumulative series was affected by preceding units, although the actual figures were not. In addition, the curves were distorted upwards by the increase in the annual load factors.[3] As the central stations attempted to level the load on the generators by granting reduced rates when the load was lightest, the number of kilowatt hours of current sold gradually increased, because consumers operated their equipment for longer periods. In addition, the extra running time reduced the life of the motors and thus diminished the kilowatt capacity of Thropp Electrical Company motors in service.

Because of irregular purchases, sales totals of street railway equipment presented a broken trend during the 15-year period between 1907 and 1922, as shown in Exhibit 2. Although this fact reduced the value of the study, the statistician decided to use the figures, since each of the other series to be plotted also was open to criticism.

Commentary: Two significant problems are raised in this case: first, the difficulty of finding adequate data for making comparisons between the growth of a company and its industry; second, the difficulty of making comparisons between cumulative and noncumulative data.

Data commonly used for measuring the growth of an industry are: total production, as in pig iron, where practically the entire produc-

[3] The annual load factor for a central station was obtained by taking the average kilowatt delivery of current during the 15 minutes of the year when the load was greatest, multiplying it by 8,760, the number of hours per year, and dividing the result by the number of kilowatt hours actually produced during the year. The maximum kilowatt delivery required by central station customers at any time during the year was determined from the average kilowatt delivery during the peak 15 minutes of the year instead of from the peak instant, in order to offset any irregular factor such as a short circuit, which was likely to occur during a single minute. The product of the peak kilowatt delivery and 8,760 represented the greatest possible number of kilowatt hours per year, and was used as a standard against which to compare actual performance. This figure was considered 100%. Each year the annual load factor approached nearer to this unattainable goal, but could never quite reach it because of the increased demand on the station from year to year.

tion is reported; total dollar sales, as reported in statements of important companies and in the *Census of Manufactures;* value added by manufacture; number of employees; rated horse power of installed machinery; invested capital; and other similar data reported biennially in the *Census of Manufactures.* All these are weak in that the census classification of companies frequently does not provide data that are comparable with the figures from any one company. The census seldom provides, furthermore, data suitable for comparison with subdivisions of a company's line of products.

Many inadequacies can be recognized in the classified power consumption data which impair their usefulness in a comparison with classified Thropp Electrical Company sales; yet it is questionable whether any better data for comparison are available.

Comparison of annual sales of durable goods like electric motors with an essentially cumulative series like power consumption introduces some avoidable inconsistencies. The first inconsistency arises from the changing unit used in sales of motors. If the motor is used as a unit, any increase in the average size of motor would retard the apparent growth in sales; if dollar value of sales is used, price changes would affect sales in a manner having no logical relation to power consumption. If available, the kilowatt rating should be used as the unit in measuring motor sales.

The second inconsistency arises from the fact that the power figures are essentially cumulative and the motor sales figures are noncomulative. Motor sales figures should be made cumulative, as suggested in the case, by accumulating the sales through the years, and by deducting sales of earlier years prior to the estimated life of a motor. In this manner the motors sold by the Thropp Electrical Company and actually in use at any given time may be approximated. Comparisons between two series of data should not be attempted when one is in cumulative and one in noncumulative form.

The power consumption data for earlier years were subject to serious question as to their authenticity. In so far as they all were estimated, as was also electricity consumed in lighting, their use by the Thropp Electrical Company as a basis for evaluating sales growth would be open to serious question. In view of the evidence offered in the case, the comparison appears to be neither worth while nor advisable.

April, 1927 D. B. S.

Mariland Company[1]

MANUFACTURER—WASTE CONTAINERS AND TINWARE

Sales Force Control—*Decreasing Selling Expense by Intensifying Sales Efforts.* A company manufacturing waste containers and tinware found that during the period from 1916 to 1923 the ratio of selling cost to selling price had increased 50%. Most of this increase had occurred in the territory where the company maintained traveling salesmen, who sold its products to retailers. The sales manager and his assistant solicited orders from wholesalers throughout the United States. In order to decrease the percentage of selling expense, the company decided to intensify its sales efforts by providing automobiles for some salesmen, by employing additional salesmen in districts too large to be covered thoroughly by one man, by mapping out definite routes for salesmen, by requiring daily reports from them, and by instituting a campaign of direct mail advertising to wholesalers.

(1923)

In 1923 a report by a firm of cost accountants revealed that in the period from 1916 to 1923 there had been a 1% increase in the ratio of unit production cost to selling price and a 50% increase in the ratio of selling cost to selling price for the Mariland Company's products. In 1916, for example, a standard product which the Mariland Company sold for $1 cost 70 cents to manufacture and 16 cents to sell. The same product in 1923 was sold for $1.17, cost 83 cents to manufacture, and 28 cents to sell. During this same period, volume of sales in dollars had increased 50%, of which approximately 20% represented higher selling prices. Most of the increase in selling expense had occurred in the territory where the company maintained traveling salesmen. The company believed that this increase was due to laxity in the control of salesmen and of the traveling expenses and to efforts made to enlarge the range of the territory in which certain salesmen traveled. From the results of this study the Mariland Company wished to evolve a plan which would maintain the existing rate of growth in sales without incurring a corresponding increase in selling expense. The factory could fill a 50% greater volume of orders than it was receiving.

The Mariland Company manufactured ash and garbage cans,

[1] Fictitious name.

pails, measures, funnels, waste cans, and patented tinware. About one-half of its volume of sales was of ash and garbage cans and pails which were sold directly to hardware retailers and department stores by 12 salesmen in a territory consisting of 7 states. In one of these states the company maintained its office and factory. The salesmen also made occasional visits to wholesalers in the territory contiguous to the factory. The company did not use traveling salesmen outside this 7-state territory. Approximately one-third of its sales volume consisted of measures, funnels, and waste cans, which were sold to about 1,000 automotive equipment and hardware wholesalers throughout the United States by the sales manager or an assistant, who visited these wholesalers once or twice a year. The balance of its sales were in patented tinware items, which were sold to hardware wholesalers throughout the United States by the sales manager or an assistant; they solicited orders intermittently and relied upon the popular features of the items to secure repeat orders. The ratio of selling cost to sales had not increased greatly in the products sold to wholesalers. The company had only one keen competitor in the territory where it maintained traveling salesmen and about 50 in the entire United States. The company advertised only in trade journals.

Each year during the period from 1916 to 1923 the salesmen had sold an increasing quantity of the Mariland Company's products. Each salesman had a district chosen arbitrarily without regard to potential sales. No quotas were assigned to the districts, nor were salesmen required to make reports of their activities. The salesmen did not have automobiles in which to call on their customers. Salesmen received commissions not only on all direct sales, but also on all mail orders from companies located in their respective sales districts.

It was the opinion of the Mariland Company that the salesmen were losing many potential sales in their districts because retailers were ordering direct from manufacturers located outside the territory in which the company maintained its salesmen. It believed that efforts should be made to secure more orders from retailers who could be served more promptly by the Mariland Company than by competitors, and that less emphasis should be placed on the expansion of the territory in districts where com-

petition was keener, especially since ash and garbage cans were expensive to ship and all freight was prepaid.

Because salesmen had no well-defined routes to follow within their districts, they concentrated their attention on those customers to whom they could make sales with the least effort. Even though they did not cover their districts thoroughly, the districts were large enough to permit salesmen to obtain each year commissions which yielded a moderate income. The salesmen admitted that they had idle time which could be used for more frequent visits to customers.

Experience had proved that wholesalers of the Mariland Company's products did not wish to be called on frequently, but preferred to place orders with the company by mail and to receive only an occasional visit from the sales manager. A few retailers, on the other hand, informed the sales manager that they ordered cans and pails from the company whose salesmen visited them when they needed to purchase more stock. If the Mariland Company's salesmen called more frequently and regularly, these retailers would place orders with them, because the Mariland Company's products were comparable in quality with those of competitors and the company could make delivery more promptly than could competitors with factories outside the territory. The Mariland Company believed also that a larger volume of sales to wholesalers could be attained without increasing the percentage of selling cost.

If the salesmen intensified their sales efforts, they might have to spend more time with each customer. The salesmen, therefore, might be unwilling to undertake a more thorough working of their districts, in the belief that they would earn less by this method. If the company were convinced, however, that intensified sales efforts would increase sales volume more than enough to counteract the increase in expense and hence decrease the percentage of selling cost to sales, it was willing to pay its salesmen salaries equal to the amounts which they then were earning by commissions.

A plan to obtain the desired results was outlined. In order to intensify sales efforts, the company was to purchase low-priced automobiles for the salesmen in districts where automobile transportation seemed preferable to rail, and to employ two or three additional salesmen in districts which were too large to be covered thoroughly by one salesman. It was estimated that this expendi-

ture would increase sales costs about 15% above the existing figure. The new salesmen were to be paid salaries. The company also mapped out definite routes for its salesmen, in order that each customer might be called on once every two weeks instead of about once in four to six weeks as under the existing plan. Daily reports stating the number of customers called on, orders taken, and sales resistance experienced, were to be required from all salesmen. The traveling expenses incurred by the sales manager or his assistant in visiting automotive equipment and hardware wholesalers were believed to be too high to enable the company to secure a larger volume of sales without at least a proportionate increase in selling expense. Consequently, the proposed plan stipulated that sales to wholesalers be stimulated by a campaign of direct mail advertising, which would cost about 5% as much as an additional visit to these wholesalers. This advertising could present special assortments of the Mariland Company's regular products.

The Mariland Company decided to intensify its sales efforts by the adoption of these suggestions. Orders for the products sold to wholesalers were solicited by a series of direct mail advertising campaigns on assortments of the company's regular products at special prices.

About one-third of the wholesalers previously solicited responded to the direct mail advertising. In 1924 information was not available as to whether the percentage of selling cost to sales had declined, but in one or two districts sales had been stimulated greatly.

Commentary: The comprehensive plan outlined by the Mariland Company involves a series of detailed problems, none of which can be developed within the compass of a short commentary. It is assumed that the products were satisfactory to the public, that the general policies of the company, prices, and distribution were satisfactory, and that the desired increase in sales was to come from an increase in the effectiveness of the sales force. There is some evidence for the last assumption in the statement that sales expense had increased particularly in territories which the salesmen covered.

The plan contemplated an increase in total sales costs of approximately 15%. Though this might involve additional financial outlay and increased risk, the increase in total sales cost is to be condemned only if sales volume was not increased proportionately, at least within

a reasonable period. The cost per unit of product distributed should be the criterion.

The plan to use automobiles in certain districts was one which should have been carried out only after careful study of the best means of reaching customers in those districts. Practical experience in the use of automobiles does not always show realization of savings which theoretical consideration claims for that means of transportation.

The establishment of definite routes for salesmen is in accordance with good practice, particularly where sales work can be regularized, and where the same customers and prospects are to be called upon at frequent intervals. Lack of planning of definite routes results in loss of time, increased expense, and unsatisfactory control. However, the establishment of such routes by the sales manager alone without conference with the salesmen is not to be approved without further question. The routing of salesmen requires detailed knowledge, experience, and judgment, which the sales manager may not possess in regard to particular territories.

The use of frequent reports as a means of control is generally to be recommended, provided the report system is as simple as possible for the purpose of giving the needed information, and provided the reports are used to direct the salesman's work, and not simply as a basis for adverse criticism of his work. Care should be taken to require only the minimum amount of clerical work of the salesman.

All of the above were important in increasing the relative amount of sales effort expended in selling the Mariland Company's product by the sales force already engaged. For the most part they involved details. None of them was as important as the leadership of the sales manager, and the training, cooperation, and direction which he gave the salesmen. From the viewpoint of the salesmen as well, there was advantage in having proper direction, work which was carefully mapped out, and leadership. The use of additional salesmen would be warranted only after careful study which showed that these salesmen, as well as those already engaged, would be fully occupied in calling upon customers and prospects at least within a reasonable length of time after hiring.

The effectiveness of a sales force may be increased by a change in the sales plan to include advertising. No sales manager has a right to assume that the particular sales plan which he uses is the best possible plan. The amount of personal selling effort expended upon a territory may be too great or too small. It may lack advertising in proper form or proper amount. In all these things the sales manager must proceed on an experimental basis, guided in part by his own past experience and the experience of others, and in part by the results of tests which can sometimes be made.

February, 1927 H. R. T.

Martel Company[1]

MANUFACTURER—VACUUM CLEANERS

Sales Organization—*Manufacturer's Salesmen Placed in Department Stores.* A company manufacturing vacuum cleaners, which sold at higher prices than those of competitors, distributed its product through hardware stores, general merchandise stores, and stores selling electrical equipment, a majority of which employed house-to-house canvassers. In order to obtain maximum distribution for its product, the company decided in 1918 to offer to place its own salesmen in department stores which did not sell competing equipment, meeting the expense by allowing department stores a 20% trade discount on purchases instead of the 40% discount ordinarily allowed retailers. By 1923, 60% of the company's sales were being made by this method.

(1918)

In 1918, the Martel Company, which manufactured vacuum cleaners, concluded that if it was to obtain maximum distribution for its products, they must be sold by department stores. The company was of the opinion that consumers no longer regarded a vacuum cleaner as a luxury. Department stores, however, as a rule were unwilling to stock vacuum cleaners, because they were expensive and apt to have a low rate of stock-turn. Many department stores believed, furthermore, that salesmen for vacuum cleaners needed special training because of the technical nature of the product.

The Martel Company had been incorporated in 1907 to produce hand power vacuum cleaners for sale under its own name. In 1917 the company had perfected the electric power type of vacuum cleaner. The company distributed its products nationally through stores selling electrical equipment, hardware stores, and general merchandise stores. A majority of these retailers employed salesmen who canvassed from house to house in their territories. The Martel Company's salesmen, who also did house-to-house canvassing, aided the retailer's salesmen by instructing them in the selling points of the equipment. The company sold to retailers at 40% off the list price and allowed them credit terms of 2% 15 days, net 30 days. The prices of the company's vacuum cleaners were higher than were those of most competing products.

[1] Fictitious name.

The sales manager of the Martel Company suggested that the company offer to place its own salesmen in department stores to sell its products. Such salesmen would continue on the Martel Company's pay roll, receiving salaries and commissions. The company could meet this expense by allowing the department stores a 20% trade discount on purchases instead of the 40% discount ordinarily allowed retailers. Since the manufacturing company was to pay the salesmen, they could be expected to protect its interests. It also would be to the advantage of the department stores to assist the manufacturer's salesmen.

It was probable that if the company placed its salesmen in department stores, the salesmen would continue to do some house-to-house canvassing. Their business cards then would bear the names of the stores in which they were located; such a credential would be a valuable introduction.

One of the company's executives suggested that, instead of supplying department stores with salesmen, the company offer to train the department stores' salesmen to sell its products. This plan would provide capable sales persons and would relieve the manufacturer of the responsibility for obtaining salesmen and supervising their activities. Objections were raised to this plan, however. Salesmen who were paid by the department stores, even though trained by the Martel Company, might be required to sell the products of the Martel Company's competitors. If the salesmen proved to be especially capable men, the stores might transfer them to other departments.

If the Martel Company's competitors also decided to place their salesmen in department stores, competing salesmen might be working side by side in a store. Since this was likely to lead to price cutting, the Martel Company decided that if it adopted this method of distribution it would insist that stores in which its salesmen were placed should sell no competing equipment. Another reason for this decision was that, since the prices of the company's vacuum cleaners were higher than those of most competing products, a prospective customer who came to a department store to purchase a Martel cleaner as the result of a salesman's demonstration in her home might purchase a competing cleaner, because of the lower price, unless the store sold the Martel brand exclusively.

The Martel Company decided to offer to place salesmen who

were on its pay roll in department stores for indefinite periods. Several department stores accepted this offer. A few stores still were reluctant to invest their capital in equipment likely to have a slow rate of stock-turn. They offered, however, to adopt the plan if they were not required to pay for the vacuum cleaners until after the cleaners had been sold. The Martel Company agreed to this provision in a number of instances. The company succeeded in placing its salesmen in a representative department store in each important city in the United States. The plan proved satisfactory. By 1923, 60% of the company's sales were being made by this method.

Commentary: Because aggressive selling is required to dispose of vacuum cleaners, the alternatives open to the Martel Company were few in number. The plan of hiring and maintaining a sales force to sell from house to house possesses some advantages but decided disadvantages. The advantages are those of direct control and the most aggressive type of selling. The disadvantages are the high cost, due both to the limited number of calls which can be made in a day and to the large turnover of sales force, and the large attendant risks of various types. The increasing difficulty of access to householders, which reflects the public's growing disapproval of house-to-house methods, increases the costs of those methods.

In the initial stages of the marketing of vacuum cleaners it is highly probable that house-to-house selling was the only method which could bring about widespread introduction of the product and familiarity with it within a short period of time.[2] Retailers and wholesalers were neither in a position to offer the aggressive effort necessary, nor were they willing to do so.

The disadvantages of house-to-house selling, from the point of view of making contacts, extending the credits necessary in the case of expensive products, and maintaining a sales force, are not encountered in selling through retailers. Distribution through retailers, however, generally does not result in sufficient effort to gain the volume considered necessary here, if special measures are not taken. Experience has shown it frequently to be unsatisfactory to depend upon the retailer, without special arrangement, to push a specialty product such as the vacuum cleaner. Although he may assign sales persons to such products, their interest may be divided, and they cannot be trained as fully in the particular product as they can be trained by the manufacturer. Satis-

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[2] Upon this point cf. Everett R. Smith, "The Economic Future of House-to-House Selling," *Harvard Business Review,* April, 1926, Vol. 4, pp. 326.332.

factory training is not to be expected from the ordinary store training course. Furthermore, the manufacturer usually cannot exercise the desired degree of control over methods when the demonstrators are paid by the store. Training of the retailers' employees by the manufacturer does not guarantee him continuing advantage, such training being largely transferable to other makes of the product. To obtain the full advantages, it is necessary that the demonstrators be trained by the manufacturer, maintained by him, and controlled within the limits consistent with store discipline and organization.

In general, it may be said that the decision of the Martel Company is to be approved as a means for securing the intensive selling effort needed so long as much remains to be done in educating a public to a comparatively new type of product. Even though the difficult introductory work had been done in most communities, there remained much more to be done. Furthermore, changes in methods, policies, and models by the manufacturer could be introduced much more easily and with much less resistance under such a method than by selling on a merchant basis without such demonstrators. There is a possible objection that any attempt to make this the exclusive policy of the company would meet with the objection of many department stores and other large retail stores to having any employees other than those paid by them. The use of demonstrators as here proposed is to be fully approved only if their employ results in a smaller total unit cost of selling. If the reduction in trade discount did not fully cover costs of their employment, the problem would be quite a different one.

February, 1927 H. R. T.

Calhoun Manufacturing Company[1]

MANUFACTURER—STATIONERS' SUPPLIES

HIRING—*Use of Rating Scale in Selecting Salesmen.* A company which manufactured ink, typewriter ribbons, and carbon paper had prepared a set of instructions for the guidance of executives in the selection of salesmen. Information regarding each candidate's training and experience was entered on an application record, one feature of which was a scale for rating an applicant's qualifications. When in 1919 a vacancy occurred in the company's sales force, a selection had to be made from among seven candidates, on the basis of their ratings.

(1919)

The Calhoun Manufacturing Company was engaged in the manufacture and sale of ink, typewriter ribbons, and carbon papers. Its products were sold to a few wholesalers, to large retailers, and to large industrial and commercial consumers. The company maintained a traveling sales force of about 40 men. The members of the sales force were high-grade salesmen. The company, nevertheless, wished to exercise even greater care in the future in the selection of recruits for the sales force, in order to improve its quality. The following instructions consequently were issued regarding the selection of salesmen:

Selection of Salesmen

Qualifications:

Calhoun salesmen should be selected from prospects who possess or can be trained to attain the qualifications described below.

1. Health:

   There should be no question of the applicant's health, which means not only condition at the time, but also his power of resistance. This is to be determined by a physician's examination.

2. Appearance and Manner:

   The chief points to be noted under this heading are

   a) personal neatness, as shown by condition of nails and teeth, beard and hair;

   b) dress, as shown by condition of shoes, linen, hat, and suit;

   c) taste, as shown by style and colors of clothing;

[1] Fictitious name.

d) bearing, as shown by the degree of courtesy, pleasing voice, sense of humor, and so forth.

3. Industry:

This is an important qualification and means that the man should possess the trait of working hard under all conditions, pleasant or discouraging. It has been called stick-to-itiveness, persistency, grit.

4. Education:

The equivalent of a high school education is the lowest educational standard we should accept. This education may have been obtained actually at a high school, or in an evening school, or by the faculty of learning in other ways. Furthermore, if over four years removed from high school graduation age (17 years), we should check up his knowledge of the general business principles that he should have learned where previously employed. This will indicate his ability to learn wherever he is placed and his habits of attention to the tasks assigned to him.

5. Age:

We should select men whose ability to learn new ways of doing things is still pronounced. Another way of putting it is to say that we want men who can be moulded easily to fit our needs, and yet men who are mature. The usual age that carries these qualities is from 20 to 25 years. It should be borne in mind, however, that these qualities frequently are to be found in men of older years.

6. Personality:

This is the sum total of the effects of all qualifications. It is not safe to use this as an individual quality, but it may be used to describe the man after the detailed analysis has been made.

Interview:

The following suggestions for sizing up a man are helpful in determining whether the candidate has the qualifications for a position as a Calhoun salesman.

1. Intermittent Interview:

The candidate should be observed under as diverse conditions as possible. This can be done in several ways—in his place of employment, by taking him to lunch, by having him call at the office, and so on. The purpose is to remove artificial restraint and thus judge him as he naturally acts and talks, or in other words to study the man while he is "off his guard." Again, by observing him at intervals there is a correspondingly greater chance of studying the man under varying conditions and in various moods.

2. Multiple Interviews:

It has also been helpful to have a senior salesman interview and observe a prospective salesman. In fact, selections made on the basis of more than one man's judgment usually mean a sounder decision.

3. Record of Interviews:

After each interview or observation of the candidate, it will be helpful to note the impression of the different qualities he has. The application blank is to be used to jot down the various facts learned and impressions gained from time to time. The impression will vary from one time to the next and give warning as to the points to be verified.

4. Final Interview:

The blank, with all its details, should be filled out when it has been decided that the prospective candidate is worthy of serious consideration for a position with us. At that time ascertain all the facts. All decisions or qualifications which involve judgment, not facts, should be made before the final interview. At this time, in addition to checking up the items of age, resistance, and so on, find out if the man is able and is willing to go wherever he may be called upon by us to go.

Source of Supply:

The following suggestions are made to indicate where such men as we need have been found in the past.

1. Calhoun branch houses
2. The Calhoun factory
3. Customers' stores

   This is a very good source in which to practice the intermittent interview method, particularly to check up the qualifications of appearance, manner, industry, age, and education. The employee in the customer's store need never know that he is being studied as a possible Calhoun salesman; hence he will be "off his guard" and natural. Employees in our customers' stores acquire a knowledge of our lines that is of value to them, if they sell for us.

4. High school

   Here is also a place to find the right kind of material. It is always possible to get in touch with the principal of the school and go over with him the list of young men who will be graduated. He or his assistants know each boy's qualities and ambitions and usually can recommend one or two possibilities for observation.

5. Advertising

   Experience has proved that this method of getting a supply of candidates is not efficient. It should be used only as a last resort.

APPLICATION RECORD

CALHOUN MANUFACTURING COMPANY

Full Name James Smith

Source of Application (Check)

C. M. C. Branch House ... Recommended by Customer ... Advertisement ✓ ... Personal
C. M. C. Factory ... Other

Interviewed by K. R. T. ... Dates x x

Local Address x x ... Telephone x x

Home Address x x

Birthplace of Father U. S.

Age 25 Where Born New York ... Birthplace of Mother U. S.

Single ✓

Married — No. Children — ... Total No. Dependents ... Wholly — Partial 1

Health (Apparent) Good ... (Rating by Physician) Good

EDUCATION

Grade School ✓ High School ✓ Trade School Business School College

Special Courses (Specify) x x

ACTIVITIES

Business Organizations (Specify if Member) Board of Trade

Social Organizations Lincoln Club

Athletics Tennis, golf

Hobbies x x

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Wilson Mfg. Co.	3 years	Shipping Dept.	$ 75	did not like work	Good / Fair ✓ / Poor
Express Dept. Store	18 mos.	Salesman	$ 100	War work	Good / Fair ✓ / Poor
Excelsior Co.	2 years	Salesman	$ 150	desired higher salary	Good / Fair ✓ / Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) novelty goods

Territory Desired New England

Will be Willing to Take Any Assignment? Yes ✓ No —

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance	✓		
Dress	✓		
Voice and Language	✓		
Frankness			✓
Energy	✓		
Persistence		✓	
Persuasive Force		✓	
Breadth of View			✓

	Good	Fair	Poor
Adaptability		✓	
Tact and Courtesy	✓		
Alertness	✓		
Ambition	✓		
Analytical Power		✓	
Attention to Detail			✓
Interest and Enthusiasm			✓
Business Sense		✓	

APPLICATION RECORD

CALHOUN MANUFACTURING COMPANY

Full Name William Brown

Source of Application (Check)

C. M. C. Branch House — C. M. C. Factory ✓ — Recommended by Customer — Advertisement — Personal Other

Interviewed by K. R. T. — Dates + +

Local Address + + — Telephone + +

Home Address + +

Age 24 — Where Born Boston — Birthplace of Father Ireland — Birthplace of Mother "

Single ✓

Married — No. Children — — Total No. Dependents — Wholly – Partial –

Health (Apparent) Good — (Rating by Physician) Good

EDUCATION

Grade School ✓ — High School ✓ — Trade School — Business School — College

Special Courses (Specify) + +

ACTIVITIES

Business Organizations (Specify if Member) + +

Social Organizations + +

Athletics none

Hobbies none

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Calhoun Mfg. Co.	5 years	4 Depts.	$150	Desires selling experience	Good ✓ Fair Poor
"	"	"		"	Good Fair Poor
					Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) Knows all our lines thoroughly

Territory Desired New England

Will be Willing to Take Any Assignment? Yes ✓ No —

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance		✓	
Dress	✓		
Voice and Language		✓	
Frankness	✓		
Energy	✓		
Persistence	✓		
Persuasive Force		✓	
Breadth of View		✓	

	Good	Fair	Poor
Adaptability		✓	
Tact and Courtesy		✓	
Alertness	✓		
Ambition	✓		
Analytical Power		✓	
Attention to Detail	✓		
Interest and Enthusiasm	✓		
Business Sense		✓	

APPLICATION RECORD
CALHOUN MANUFACTURING COMPANY

Full Name Charles Black
Source of Application (Check)
C. M. C. Branch House Recommended by Customer Advertisement Personal ✓
C. M. C. Factory Other
Interviewed by R. R. T. Dates + +
Local Address + + Telephone + +
Home Address + +
Birthplace of Father U. S.
Age 24 Where Born Pennsylvania Birthplace of Mother "
Single ✓ Total No. Dependents Wholly —
Married — No. Children — Partial —
Health (Apparent) Good (Rating by Physician) Fair

EDUCATION

Grade School ✓ High School ✓ Trade School Business School College
Special Courses (Specify) + +

ACTIVITIES

Business Organizations (Specify if Member) + +
Social Organizations Audiron Club
Athletics Tennis
Hobbies + +

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Sixth National Bank	4 years	Clerk	$125	Lack of opportunity	Good ✓ Fair Poor
					Good Fair Poor
					Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) none
Territory Desired Pennsylvania
Will be Willing to Take Any Assignment? Yes ✓ No —
Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance		✓	
Dress		✓	
Voice and Language		✓	
Frankness	✓		
Energy		✓	
Persistence		✓	
Persuasive Force		✓	
Breadth of View			✓

	Good	Fair	Poor
Adaptability		✓	
Tact and Courtesy		✓	
Alertness		✓	
Ambition	✓		
Analytical Power			✓
Attention to Detail	✓		
Interest and Enthusiasm		✓	
Business Sense		✓	

APPLICATION RECORD

CALHOUN MANUFACTURING COMPANY

Full Name Horace Gray

Source of Application (Check)

C. M. C. Branch House — Recommended by Customer ✓ — Advertisement — Personal
C. M. C. Factory — Other

Interviewed by J. O. F. Dates + +

Local Address + + Telephone + +

Home Address + +

Age 21 Where Born New York Birthplace of Father U. S. Birthplace of Mother Canada

Single ✓ Married — No. Children — Total No. Dependents Wholly — Partial —

Health (Apparent) Good (Rating by Physician) Good

EDUCATION

Grade School ✓ High School Trade School Business School ✓ College

Special Courses (Specify) Bookkeeping

ACTIVITIES

Business Organizations (Specify if Member) + +

Social Organizations + +

Athletics + +

Hobbies + +

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Anderson & Co.	2 years	Retail Salesman	$100	None	Good ✓ Fair Poor
					Good Fair Poor
					Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) Has sold our goods and others

Territory Desired Middle West

Will be Willing to Take Any Assignment? Yes ✓ No —

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance	✓		
Dress	✓		
Voice and Language	✓		
Frankness	✓		
Energy		✓	
Persistence		✓	
Persuasive Force			✓
Breadth of View			✓

	Good	Fair	Poor
Adaptability		✓	
Tact and Courtesy	✓		
Alertness		✓	
Ambition		✓	
Analytical Power		✓	
Attention to Detail			✓
Interest and Enthusiasm		✓	
Business Sense		✓	

APPLICATION RECORD
CALHOUN MANUFACTURING COMPANY

Full Name Roger Green

Source of Application (Check)

C. M. C. Branch House | Recommended by Customer | Advertisement | Personal ✓ Other
C. M. C. Factory

Interviewed by K. R. T. Dates + +

Local Address + + Telephone + +

Home Address + +

Age 26 Where Born Illinois Birthplace of Father U. S.

Birthplace of Mother "

Single —
Married ✓ No. Children 2 Total No. Dependents Wholly 3 Partial —

Health (Apparent) Fair (Rating by Physician) Fair

EDUCATION

Grade School ✓ High School ✓ Trade School Business School College

Special Courses (Specify) + +

ACTIVITIES

Business Organizations (Specify if Member) + +

Social Organizations Grundee Society

Athletics + +

Hobbies + +

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Emerson Mfg. Co.	3 years	Travelling salesman	$ 100	Salary	Good Fair ✓ Poor
Sampson Mfg. Co.	2 years	Travelling salesman	$ 150	Salary	Good Fair ✓ Poor
"	"			"	Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) Has sold products of our chief competitors

Territory Desired Middle West

Will be Willing to Take Any Assignment? Yes — No ✓

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance	✓		
Dress		✓	
Voice and Language	✓		
Frankness		✓	
Energy		✓	
Persistence		✓	
Persuasive Force		✓	
Breadth of View		✓	

	Good	Fair	Poor
Adaptability	✓		
Tact and Courtesy	✓		
Alertness		✓	
Ambition		✓	
Analytical Power		✓	
Attention to Detail			✓
Interest and Enthusiasm		✓	
Business Sense	✓		

APPLICATION RECORD

CALHOUN MANUFACTURING COMPANY

Full Name *Amos White*

Source of Application (Check)

C. M. C. Branch House — Recommended by Customer — Advertisement — Personal ✓

C. M. C. Factory — Other

Interviewed by *D. O. F.* Dates — —

Local Address — — Telephone — —

Home Address — —

Age *24* Where Born *Kentucky* Birthplace of Father *U. S.*

Birthplace of Mother *"*

Single ✓

Married — No. Children — Total No. Dependents Wholly — Partial —

Health (Apparent) *Good* (Rating by Physician) *Good*

EDUCATION

Grade School ✓ High School ✓ Trade School Business School College

Special Courses (Specify) — —

ACTIVITIES

Business Organizations (Specify if Member) *Business Men's Club*

Social Organizations — —

Athletics — —

Hobbies — —

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
Lawrence Silk Co.	*4 years*	*Credit Dept.*	*$125*	*Business closed*	Good ✓ Fair Poor
					Good Fair Poor
					Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) *None*

Territory Desired *Far West*

Will be Willing to Take Any Assignment? Yes ✓ No —

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance	✓		
Dress		✓	
Voice and Language		✓	
Frankness	✓		
Energy	✓		
Persistence	✓		
Persuasive Force	✓		
Breadth of View		✓	

	Good	Fair	Poor
Adaptability	✓		
Tact and Courtesy	✓		
Alertness	✓		
Ambition	✓		
Analytical Power		✓	
Attention to Detail		✓	
Interest and Enthusiasm	✓		
Business Sense	✓		

APPLICATION RECORD

CALHOUN MANUFACTURING COMPANY

Full Name Adam Printz

Source of Application (Check)

C. M. C. Branch House Recommended Advertisement Personal ✓
C. M. C. Factory by Customer Other

Interviewed by K. R. T. Dates ++

Local Address ++ Telephone ++

Home Address ++

Age 23 Where Born California Birthplace of Father Germany
Birthplace of Mother U. S.

Single ✓
Married — No. Children — Total No. Dependents Wholly — Partial —

Health (Apparent) Good (Rating by Physician) Good

EDUCATION

Grade School ✓ High School ✓ Trade School Business School College ✓

Special Courses (Specify) ++

ACTIVITIES

Business Organizations (Specify if Member) ++

Social Organizations College fraternity

Athletics Baseball, Tennis.

Hobbies ++

PREVIOUS EMPLOYMENT

Company	Period	Job	Salary Monthly	Reasons for Leaving	References
None					Good Fair Poor
					Good Fair Poor
					Good Fair Poor

SPECIAL ABILITY

(Knowledge of Special Lines, etc.) None

Territory Desired No preference

Will be Willing to Take Any Assignment? Yes ✓ No —

Qualifications (Applicant to be Rated After Each Interview)

	Good	Fair	Poor
Personal Appearance		✓	
Dress		✓	
Voice and Language			✓
Frankness	✓		
Energy	✓		
Persistence		✓	
Persuasive Force			✓
Breadth of View		✓	

	Good	Fair	Poor
Adaptability		✓	
Tact and Courtesy	✓		
Alertness		✓	
Ambition	✓		
Analytical Power	✓		
Attention to Detail			✓
Interest and Enthusiasm	✓		
Business Sense		✓	

6. Small cities and large towns

   District managers and salesmen, as they travel, can keep in mind the need for Calhoun salesmen and be on the lookout for good prospects. The smaller cities and larger towns are as likely to have them as the large cities.

7. Records

   A list of possible candidates should be kept at all times. The method of intermittent interviews makes it possible to take sufficient time to size up the man, so that whenever there comes a call for more men, all the work preliminary to the final interview will have been done with a number of good prospects in sight for the position.

In October, 1919, a vacancy occurred on the Calhoun sales force; it was to be filled by one of the candidates whose application records, with omission of minor details, are given on the preceding pages. The successful candidate was to be assigned to the Ohio district; it was expected, however, that later it might become necessary to transfer him elsewhere.

Commentary: The specific problem presented in this case was to make a selection from the seven candidates for the vacant position of salesman. The choice was narrowed down readily to two candidates—William Brown and Amos White. Their qualifications were manifestly superior to those of the other five candidates.

On such inherently significant qualifications as frankness, energy, alertness, and interest and enthusiasm, both candidates were rated as good. On dress and on attention to detail, Brown ranked above White. On personal appearance, persuasive force, adaptability, tact and courtesy, and business sense, White had the higher rating. These were qualities, however, which might fairly be expected to be susceptible of improvement by proper training, especially in the case of a man whose business experience had been limited to factory work. The superiority which White manifested in his ratings on these qualities, furthermore, was more than offset by the fact that Brown already was in the company's employ, familiar with its factory methods and policies. He was well rated by the executives in whose departments he had worked. For him, the appointment to a position as salesman was in the nature of a promotion. Under such circumstances, promotion of a man in the company's employ was likely to aid in engendering confidence among other ambitious employees that they might expect recognition of their achievements and preference over outsiders when vacancies occurred in positions to which they might aspire. The stimulating effect of the promotion, not only on Brown himself but also on his coworkers,

counted for more than White's superior rating on the qualifications noted above; hence Brown was the logical selection for the position, provided he gave a good account of himself in the final interview.

Although the form of the application record and of the rating scale used by the Calhoun Manufacturing Company probably was not perfect in all its details, its utility in practice is exemplified in this case.

February, 1926 M. T. C.

UNITED STATES *v.* GENERAL ELECTRIC COMPANY, *et al.*[1]

MANUFACTURER—ELECTRIC LAMPS

PRICE MAINTENANCE—*Manufacturer's Right to Specify Prices under Agency Contracts.* Through the ownership of patents covering completely the making of tungsten incandescent lamps, an electrical manufacturing company held the monopoly of their making, using, and vending. The company distributed its product under contracts providing that title to the lamps should remain in the company until they were sold by the distributors and that the latter should pay for the lamps after sales were made. The company assumed all risk of fire, obsolescence, and price decline, and carried insurance and paid taxes on stocks of lamps in the distributors' hands. The Supreme Court of the United States construed the arrangement to constitute a contract of agency, and held that a restriction in the contracts as to prices at which sales were to be made by the agents, therefore, was not a restraint of trade and a violation of the Anti-Trust Act.[2]

PRICE MAINTENANCE—*Right of Patent Owner to Fix Prices Charged by Licensee of Patented Process.* An electrical manufacturing company was the owner of patents entirely controlling the manufacture, use, and sale of tungsten incandescent lamps. The Supreme Court of the United States held that the company might, without violating the Anti-Trust Act, impose in a license to another company to make, use, and sell lamps under such patents the condition that sales should be at prices fixed by the licensor and subject to change according to its discretion.[2]

(1926)

Mr. Chief Justice TAFT delivered the opinion of the court.

This is a bill in equity, brought by the United States in the District Court for the Northern District of Ohio, to enjoin the General Electric Company, the Westinghouse Electric & Manufacturing Company, and the Westinghouse Lamp Company from further violation of the Anti-Trust Act of July 2, 1890.[3] The bill made two charges, one that the General Electric Company, in its business of making and selling incandescent electric lights, had devised and was carrying out a plan for their distribution throughout the United States by a number of so-called agents, exceeding 21,000, to restrain interstate trade in such lamps and to exercise a monopoly of the sale thereof; and, second, that it was achieving the same illegal purpose through a contract of license with

[1] Supreme Court of the United States. Argued October 13, 1926. Decided November 23, 1926. 47 Sup. Ct. 192.

[2] Headnote by Graduate School of Business Administration.

[3] 26 Stat. 209, c. 647 (Comp. St. §§ 8820-8823, 8827-8830).

the defendants, the Westinghouse Electric & Manufacturing Company and the Westinghouse Lamp Company. As the Westinghouse Lamp Company is a corporation all of whose stock is owned by the Westinghouse Electric & Manufacturing Company, and is but its selling agent, we may treat the two as one, and reference hereafter will be only to the defendants, the General Electric Company, which we shall call the Electric Company, and the Westinghouse Company.

The government alleged that the system of distribution adopted was merely a device to enable the Electric Company to fix the resale prices of lamps in the hands of purchasers, that the so-called agents were in fact wholesale and retail merchants, and the lamps passed through the ordinary channels of commerce in the ordinary way, and that the restraint was the same and just as unlawful as if the so-called agents were avowed purchasers handling the lamps under resale price agreements. The Electric Company answered that its distributors were *bona fide* agents, that it had the legal right to market its lamps and pass them directly to the consumer by such agents, and at prices and by a system prescribed by it and agreed upon between it and its agents, there being no limitation sought as to resale prices upon those who purchased from such agents.

The second question in the case involves the validity of a license granted March 1, 1912, by the Electric Company to the Westinghouse Company to make, use, and sell lamps under the patents owned by the former. It was charged that the license in effect provided that the Westinghouse Company would follow prices and terms of sale from time to time fixed by the Electric Company and observed by it, and that the Westinghouse Company would, with regard to lamps manufactured by it under the license, adopt and maintain the same conditions of sale as observed by the Electric Company in the distribution of lamps manufactured by it.

The District Court upon a full hearing dismissed the bill for want of equity, and this is an appeal under Section 2 of the Act of February 11, 1903, known as the Expediting Act (32 Stat. 823, c. 544, § 2 [Comp. St. § 8825]).

There had been a prior litigation between the United States and the three defendants and 32 other corporations, in which the government sued to dissolve an illegal combination in restraint of interstate commerce in electric lamps, in violation of the Anti-Trust Act, and to enjoin its further violation. A consent decree was entered in that cause, by which the combination was dissolved, the subsidiary corporations surrendered their charters, and their properties were taken over by the General Electric Company. The defendants were all enjoined from fixing resale prices for purchasers, except that the owners of the patents were permitted to fix the prices at which a licensee should sell lamps manufactured by it under the patent. After the decree was entered, a new sales plan, which was the one here complained of, was submitted to the Attorney General. The Attorney General declined to express

an opinion as to its legality. The plan was adopted and has been in operation since 1912.

The government insists that these circumstances tend to support the government's view that the new plan was a mere evasion of the restrictions of the decree and was intended to carry out the same evil result that had been condemned in the prior litigation. There is really no conflict of testimony in the sense of a variation as to the facts but only a difference as to the inference to be drawn therefrom. The evidence is all included in a stipulation as to certain facts, as to what certain witnesses for the defendants would testify, and as to the written contracts of license and agency made by the General Electric Company and the Westinghouse Company.

The General Electric Company is the owner of three patents—one of 1912 to Just and Hanaman, the basic patent for the use of tungsten filaments in the manufacture of electric lamps; the Coolidge patent of 1913, covering a process of manufacturing tungsten filaments by which their tensile strength and endurance is greatly increased; and, third, the Langmuir patent of 1916, which is for the use of gas in the bulb, by which the intensity of the light is substantially heightened. These three patents cover completely the making of the modern electric lights with the tungsten filaments, and secure to the General Electric Company the monopoly of their making, using, and vending.

The total business in electric lights for the year 1921 was $68,300,000, and the relative percentages of business done by the companies were: General Electric, 69%; Westinghouse, 16%; other licensees, 8%; and manufacturers not licensed, 7%. The plan of distribution by the Electric Company divides the trade into three classes. The first class is that of sales to large consumers readily reached by the General Electric Company, negotiated by its own salaried employees, and the deliveries made from its own factories and warehouses. The second class is of sales to large consumers under contracts with the General Electric Company, negotiated by agents, the deliveries being made from stock in the custody of the agents; and the third is of the sales to general consumers by agents under similar contracts. The agents under the second class are called B agents, and the agents under the third class are called A agents. Each B agent is appointed by the General Electric Company by the execution and delivery of a contract for the appointment, which lasts a year from a stated date, unless sooner terminated. It provides that the company is to maintain on consignment in the custody of the agent a stock of lamps, the sizes, types, classes, and quantity of which and the length of time which they are to remain in stock to be determined by the company. The lamps consigned to the agents are to be kept in their respective places of business, where they may be readily inspected and identified by the company. The consigned stock, or any part of it, is to be returned to the company as it may direct. The agent is to keep account books and records giving the complete information as to his dealings for the inspection of the company. All of the lamps in such consigned stock are to be and

remain the property of the company until the lamps are sold, and the proceeds of all lamps are to be held in trust for the benefit and for the account of the company until fully accounted for. The B agent is authorized to deal with the lamps on consignment with him in three ways—first, to distribute the lamps to those of the company's A agents as directed by the company; second, to sell lamps from the stock to any consumer to the extent of his requirements for immediate delivery at prices specified by the company; third, to deliver lamps from the stock to any purchaser under written contract with the company to whom the B agent may be authorized by the company to deliver lamps at the prices and on the terms stated in the contract. The B agent has no authority to dispose of any of the lamps, except as above provided, and is not to control or attempt to control prices at which any purchaser shall sell any of such lamps. The agent is to pay all expenses in the storage, cartage, transportation, handling, sale, and distribution of lamps, and all expenses incident thereto and to the accounting therefor, and to the collection of accounts created. This transportation does not include the freight for the lamps in the consignment from the company to the agent. The agent guarantees the return to the company of all unsold lamps in the custody of the agent within a certain time after the termination of his agency. The agent is to pay over to the company not later than the 15th of each month an amount equal to the total sales value, less the agent's compensation, of all of the company's lamps sold by him—that is, first, of the collections that have been made; second, of those customers' accounts which are past due. This is to comply with the guaranty of the agent of due and prompt payment for all lamps sold by him from his stock. Third, the agent is to pay to the company the value of all of the company's lamps lost or missing from or damaged in the stock in his custody.

There is a basic rate of commission payable to the agent and there are certain special supplemental and additional compensations for prompt and efficient service. If the agent becomes insolvent, or fails to make reports and remittances, or fails in any of his obligations, the appointment may be terminated, and, when terminated, either at the end of the year or otherwise, the consigned lamps remaining unsold are to be delivered to the manufacturer. It appears in the evidence that since 1915, although there is no specific agreement to this effect, the company has assumed all risk of fire, flood, obsolescence, and price decline, and carries whatever insurance is carried on the stocks of lamps in the hands of its agents and pays whatever taxes are assessed. This is relevant as a circumstance to confirm the view that the so-called relation of agent to the company is the real one. There are 400 of the B agents, the large distributors. They recommend to the company efficient and reliable distributors in the localities with which they are respectively familiar, to act as A agents, whom the company appoints. There are 21,000 or more of the A agents. They are usually retail electrical supply dealers in smaller places. The only sales which the A agent is authorized to make are to consumers for immediate delivery

and to purchasers under written contract with the manufacturer, just as in the case of the B agents. The plan was, of course, devised for the purpose of enabling the company to deal directly with consumers and purchasers, and doubtless was intended to avoid selling the lamps owned by the company to jobbers or dealers and prevent sale by these middlemen to consumers at different and competing prices. The question is whether by making such arrangements those who ordinarily and usually would be merchants buying from the manufacturer and selling to the public are to be treated as agents or as owners of the lamps, by reason of the consignment to them under such contracts. If they are to be regarded really as purchasers, then the restriction as to the prices at which the sales are to be made is a restraint of trade and a violation of the Anti-Trust Law.

We find nothing in the form of the contracts and the practice under them which makes the so-called B and A agents anything more than genuine agents of the company, or the delivery of the stock to each agent anything more than a consignment to the agent for his custody and sale as such. He is not obliged to pay over money for the stock held by him until it is sold. As he guarantees the account when made, he must turn over what should have been paid whether he gets it or not. This term occurs in a frequent form of pure agency known as sale by *del credere* commission. There is no conflict in the agent's obligation to account for all lamps lost, missing, or damaged in the stock. It is only a reasonable provision to secure his careful handling of the goods intrusted to him. We find nothing in his agreement to pay the expense of storage, cartage, transportation (except the freight on the original consignment), handling, and the sale and distribution of the lamps, inconsistent with his relation as agent. The expense of this is, of course, covered in the amount of his fixed commission. The agent has no power to deal with the lamps in any way inconsistent with the retained ownership of the lamps by the company. When they are delivered by him to the purchasers, the title passes directly from the company to those purchasers. There is no evidence that any purchaser from the company or any of its agents is put under any obligation to sell at any price, or to deal with the lamps purchased except as an independent owner. The circumstance that the agents were in their regular business wholesale or retail merchants, and under a prior arrangement had bought the lamps and sold them as their owners, did not prevent a change in their relation to the company. We find no reason in this record to hold that the change in this case was not in good faith and actually maintained.

But it is said that the system of distribution is so complicated and involves such a very large number of agents, distributed throughout the entire country, that the very size and comprehensiveness of the scheme brings it within the Anti-Trust Law. We do not question that in a suit under the Anti-Trust Act the circumstance that the combination effected secures domination of so large a part of the business affected as to control prices is usually most important in proof of a

monopoly violating the act. But under the patent law the patentee is given by statute a monopoly of making, using and selling the patented article. The extent of his monopoly in the articles sold and in the territory of the United States where sold is not limited in the grant of his patent, and the comprehensiveness of his control of the business in the sale of the patented article is not necessarily an indication of illegality of his method. As long as he makes no effort to fasten upon ownership of the articles he sells control of the prices at which his purchaser shall sell, it makes no difference how widespread his monopoly. It is only when he adopts a combination with others, by which he steps out of the scope of his patent rights and seeks to control and restrain those to whom he has sold his patented articles in their subsequent disposition of what is theirs, that he comes within the operation of the Anti-Trust Act. The validity of the Electric Company's scheme of distribution of its electric lamps turns, therefore, on the question whether the sales are by the company through its agents to the consumer, or are in fact by the company to the so-called agents at the time of consignment. The distinction in law and fact between an agency and a sale is clear. For the reasons already stated, we find no ground for inference that the contracts made between the company and its agents are, or were intended to be, other than what their language makes them.

The government relies in its contention for a different conclusion on the case of *Dr. Miles Medical Co.* v. *John D. Park & Sons Co.*, 220 U.S. 373, 31 Sup. Ct. 36, 55 L. Ed. 502. That case was a bill in equity brought by the Miles Medical Company to enjoin Park & Sons Company from continuing an alleged conspiracy with a number of wholesale and retail dealers in proprietary medicines, to induce the persons who had entered into certain agency contracts, to the number of 21,000 throughout the country, to break their contracts of agency with the Medical Company, to the great injury of that company. The agency concerned the sale of proprietary medicines prepared by secret methods and formulas and identified by distinctive packages and trade-marks. The company had an extensive trade throughout the United States and certain foreign countries. It had been its practice to sell its medicines to jobbers and wholesale druggists, who in turn sold to retail druggists for sale to the customer. It had fixed not only the price of its own sales to jobbers and wholesale dealers but also the prices of jobbers and small dealers. The defendants had inaugurated a cut-rate or cut-price system, which had caused great damage to the complainants' business, injuriously affected its reputation, and depleted the sales of its remedies. The bill was demurred to, on the ground that the methods set forth in the bill, by which attempt was made to control the sales of prices to consumers was illegal both at common law and under the Anti-Trust Act, and deprived the bill of any equity. This was the issue considered by the court.

The plan of distribution of the Miles Medical Company resembled in many details the plan of distribution in the present case, except that the subject matter there was medicine by a secret formula, and not a

patented article. But there were certain vital differences. These led the Circuit Court of Appeals (164 Fed. 803, 90 C.C.A. 579) to declare that the language of the so-called contracts of agency were false in their purport, and were merely used to conceal what were really sales to the so-called agents. This conclusion was sustained by certain allegations in the bill inconsistent with the contracts of agency, to the effect that the Medical Company did sell to these so-called agents the medical packages consigned. This court, however, without reference to these telltale allegations of the bill, found in the contracts themselves and their operation plain provision for purchases by the so-called agents which necessarily made the contracts as to an indefinite amount of the consignments to them, contracts of sale rather than of agency. The court therefore held that the showing made was of an attempt by the Miles Medical Company through its plan of distribution to hold its purchasers after the purchase at full price to an obligation to maintain prices on a resale by them. This is the whole effect of the Miles Medical Case. That such it was is made plain in the case of *Boston Store* v. *American Graphophone Co.*, 246 U.S. 8, 21, 38 Sup. Ct. 257, 259, 62 L. Ed. 551, Ann. Cas. 1918C, 447, in which then Chief Justice White reviewed the various cases on this general subject and spoke of the Miles Medical Case as follows:

> In *Dr. Miles Medical Co.* v. *Park & Sons Co.*, 220 U.S. 373 [31 Sup. Ct. 376, 55 L. Ed. 502], it was decided that under the general law the owner of movables (in that case, proprietary medicines compounded by a secret formula) could not sell the movables and lawfully by contract fix a price at which the product should afterwards be sold, because to do so would be at one and the same time to sell and retain, to part with and yet to hold, to project the will of the seller so as to cause it to control the movable parted with when it was not subject to his will because owned by another, and thus to make the will of the seller unwarrantedly take the place of the law of the land as to such movables. It was decided that the power to make the limitation as to price for the future could not be exerted consistently with the prohibitions against restraint of trade and monopoly contained in the Anti-Trust Law.

Nor does the case of *Standard Sanitary Manufacturing Co.* v. *United States*, 226 U.S. 20, 33 Sup. Ct. 9, 57 L. Ed. 107, sustain the contention of the government on the first question. There a number of manufacturers, one of whom owned a patent for enameled ironware for plumbing fixtures, made a combination to accept licenses to make the patented commodities and to sell them in interstate trade to jobbers and to refuse to sell to jobbers who would not agree to maintain fixed prices in sales to plumbers. This was an attempt just like that in the Miles Medical Company Case to control the trade in the article sold and fasten upon purchasers who had bought at full price and were complete owners an obligation to maintain resale prices.

We are of the opinion, therefore, that there is nothing as a matter of principle or in the authorities which requires us to hold that genuine contracts of agency like those before us, however comprehensive as a mass or whole in their effect, are violations of the Anti-Trust Act. The owner of an article patented or otherwise is not violating the common law or the Anti-Trust Act by seeking to dispose of his articles directly to the consumer and fixing the price by which his agents transfer the title from him directly to such consumer. The first charge in the bill can not be sustained.

Second. Had the Electric Company as the owner of the patents, entirely controlling the manufacture, use and sale of the tungsten incandescent lamps, in its license to the Westinghouse Company, the right to impose the condition that its sales should be at prices fixed by the licensor and subject to change according to its discretion? The contention is also made that the license required the Westinghouse Company not only to conform in the matter of the prices at which it might vend the patented articles, but also to follow the same plan as that which we have already explained the Electric Company adopted in its distribution. It does not appear that this provision was express in the license, because no such plan was set out therein, but even if the construction urged by the government is correct, we think the result must be the same.

The owner of a patent may assign it to another and convey (1) the exclusive right to make, use, and vend the invention throughout the United States; or (2) an undivided part or share of that exclusive right; or (3) the exclusive right under the patent within and through a specific part of the United States. But any assignment or transfer short of one of these is a license giving the licensee no title in the patent and no right to sue at law in his own name for an infringement.[4] Conveying less than title to the patent or part of it, the patentee may grant a license to make, use, and vend articles under the specifications of his patent for any royalty, or upon any condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure. It is well settled, as already said, that where a patentee makes the patented article, and sells it, he can exercise no future control over what the purchaser may wish to do with the article after his purchase. It has passed beyond the scope of the patentee's rights.[5]

But the question is a different one which arises when we consider what a patentee who grants a license to one to make and vend the

[4] *Waterman* v. *Mackenzie*, 138 U.S. 252, 255, 11 Sup. Ct. 334, 34 L. Ed. 923; *Gayler* v. *Wilder*, 10 How. 477, 494, 495, 13 L. Ed. 504; *Moore* v. *Marsh*, 7 Wall. 515, 19 L. Ed. 37; and *Crown Co.* v. *Nye Tool Works*, 261 U.S. 24, 30, 43 Sup. Ct. 254, 67 L. Ed. 516.

[5] *Adams* v. *Burks*, 17 Wall. 453, 21 L. Ed. 700; *Bloomer* v *McQuewan*, 14 How. 539, 14 L. Ed. 532; *Mitchell* v. *Hawley*, 16 Wall. 544, 21 L. Ed. 322; *Hobbie* v. *Jennison*, 149 U.S. 355, 13 Sup. Ct. 879, 37 L. Ed. 766; *Keeler* v. *Standard Folding Bed Co.*, 157 U.S. 659, 15 Sup. Ct. 738, 39 L. Ed. 848.

patented article may do in limiting the licensee in the exercise of the right to sell. The patentee may make and grant a license to another to make and use the patented articles but withhold his right to sell them. The licensee in such a case acquires an interest in the articles made. He owns the materials of them and may use them. But if he sells them he infringes the right of the patentee, and may be held for damages and enjoined. If the patentee goes further and licenses the selling of the articles, may he limit the selling by limiting the method of sale and the price? We think he may do so provided the conditions of sale are normally and reasonably adapted to secure pecuniary reward for the patentee's monopoly. One of the valuable elements of the exclusive right of a patentee is to acquire profit by the price at which the article is sold. The higher the price, the greater the profit, unless it is prohibitory. When the patentee licenses another to make and vend and retains the right to continue to make and vend on his own account, the price at which his licensee will sell will necessarily affect the price at which he can sell his own patented goods. It would seem entirely reasonable that he should say to the licensee, "Yes, you may make and sell articles under my patent but not so as to destroy the profit that I wish to obtain by making them and selling them myself." He does not thereby sell outright to the licensee the articles the latter may make and sell or vest absolute ownership in them. He restricts the property and interest the licensee has in the goods he makes and proposes to sell.

This question was considered by this court in the case of *Bement* v. *National Harrow Co.,* 186 U.S. 70, 22 Sup. Ct. 747, 46 L. Ed. 1058. A combination of manufacturers owning a patent to make float spring tool harrows licensed others to make and sell the products under the patent on condition that they would not during the continuance of the license sell the products at a less price or on more favorable terms of payment and delivery to purchasers than were set forth in a schedule made part of the license. That was held to be a valid use of the patent rights of the owners of the patent. It was objected that this made for a monopoly. The court, speaking by Mr. Justice Peckham, said (page 91 [22 Sup. Ct. 755]):

> The very object of these laws is monopoly, and the rule is, with few exceptions, that any conditions which are not in their very nature illegal with regard to this kind of property, imposed by the patentee and agreed to by the licensee for the right to manufacture or use or sell the article, will be upheld by the courts. The fact that the conditions in the contracts keep up the monopoly or fix prices does not render them illegal.

Speaking of the contract, he said (page 93 [22 Sup. Ct. 756]):

> The provision in regard to the price at which the licensee would sell the article manufactured under the license was also an appropriate and reasonable condition. It tended to keep up the price of the implements manufactured and sold, but that was only recognizing the nature of the property dealt in, and providing for its

value so far as possible. This the parties were legally entitled to do. The owner of a patented article can, of course, charge such price as he may choose, and the owner of a patent may assign it or sell the right to manufacture and sell the article patented upon the condition that the assignee shall charge a certain amount for such article.

The question which the court had before it in that case came to it on a writ of error to the Court of Appeals of New York, and raised the Federal issue whether a contract of license of this kind, having a wide operation in the sales of the harrows, was invalid because a violation of the Anti-Trust law. This court held that it was not.

It is argued, however, that *Bement* v. *National Harrow Co.* has been in effect overruled. The claim is based on the fact that one of the cases cited by Mr. Justice Peckham in that case was *Heaton-Peninsular Button-Fastener Co.* v. *Eureka Specialty Co.*, 77 Fed. 288, 25 C.C.A. 267, 35 L.R.A. 728. This was a decision by the Circuit Court of Appeals of the Sixth Circuit, the opinion being written by Circuit Judge Lurton, afterwards a Justice of this court. The question there considered was whether the owner of a patent for a machine for fastening buttons to shoes with metallic fasteners might sell such machines subject to the condition that they should be used only with fasteners manufactured by the seller, the patented machine to revert on the breach of the condition. The purchaser of the machine was held to be a licensee and the use by him of the unpatented fasteners contrary to the condition to be a breach of contract of the license and an infringement of the patent monopoly.

A similar case came before this court and is reported in *Henry* v. *Dick Co.*, 224 U.S. 1, 32 Sup. Ct. 364, 56 L. Ed. 645, Ann. Cas. 1913D 880, the opinion in which was also delivered by Mr. Justice Lurton. In that case, a complainant sold his patented machine embodying his invention. It was called the "rotary mimeograph." The claims of the patent did not embrace ink or other materials used in working it. Upon the machine, however, was inscribed a notice, styled a license restriction, reciting that the machine might be used only with the stencil paper, ink, and other supplies made by the A. B. Dick Company. The Henry Company, dealers in ink, sold to the purchaser, for use in working her machine, ink not made by the Dick Company. This court held by a majority that the use of such ink by the purchaser was a prohibited use and rendered her liable to an action under the patent law for infringement, and that the seller of the ink was liable as a contributory infringer.

The case was overruled by this court in the *Motion Picture Patents Co.* v. *Universal Film Co.*, 243 U.S. 502, 37 Sup. Ct. 416, 61 L. Ed. 871, L.R.A. 1917E 1187, Ann. Cas. 1918A 959. The patent in that case covered a part of the mechanism used in motion picture exhibiting machines for feeding a film through the machine with a regular uniform and accurate movement so as not to expose the film to excessive strain

or wear. The license agreement contained a covenant on the part of the licensee that every machine sold by it should be sold under the restriction and condition that such exhibiting or projecting machines should be used solely for exhibiting or projecting motion pictures of the Motion Picture Patents Company. The overruling of the Dick Case was based on the ground that the grant of the patent was of the exclusive right to use the mechanism and produce the result with any appropriate material and that the materials or pictures upon which the machine was operated were no part of the patented machine, or of the combination which produced the patented result.

The overruling of the Dick Case and the disapproval of the Button-Fastener Case by the Motion Picture Film Case did not carry with it the overruling of *Bement* v. *Harrow Co.* The Button-Fastener Case was cited in the case of *Bement* v. *Harrow Co.* to sustain the decision there by what was an *a fortiori* argument. The ruling in the former case was much broader than was needed for the decision in the latter. The price at which a patented article sells is certainly a circumstance having a more direct relation and is more germane to the rights of the patentee than the unpatented material with which the patented article may be used. Indeed, as already said, price fixing is usually the essence of that which secures proper reward to the patentee.

Nor do we think that the decisions of this court holding restrictions as to price of patented articles invalid apply to a contract of license like the one in this case. Those cases are: *Boston Store* v. *American Graphophone Co.*, 246 U.S. 8, 38 Sup. Ct. 257, 62 L. Ed. 551, Ann. Cas. 1918C 447; *Strauss* v. *Victor Talking Machine Co.*, 243 U.S. 490, 37 Sup. Ct. 412, 61 L. Ed. 866, L.R.A. 1917E 1196, Ann. Cas. 1918A 955; *Bauer* v. *O'Donnell*, 229 U.S. 1, 33 Sup. Ct. 616, 57 L. Ed. 1041, 50 L.R.A. (N.S.) 1185, Ann. Cas. 1915A 150; *Standard Sanitary Manufacturing Co.* v. *United States*, 226 U.S. 20, 33 Sup. Ct. 9, 57 L. Ed. 107; *Bobbs-Merrill Co.* v. *Straus*, 210 U.S. 339, 28 Sup. Ct. 722, 52 L. Ed. 1086. These cases really are only instances of the application of the principle of *Adams* v. *Burks*, 17 Wall. 453, 456, 21 L. Ed. 700, already referred to, that a patentee may not attach to the article made by him or with his consent a condition running with the article in the hands of purchasers limiting the price at which one who becomes its owner for full consideration shall part with it. They do not consider or condemn a restriction put by a patentee upon his licensee as to the prices at which the latter shall sell articles which he makes and only can make legally under the license. The authority of *Bement* v. *Harrow Co.* has not been shaken by the cases we have reviewed.

For the reasons given, we sustain the validity of the license granted by the Electric Company to the Westinghouse Company. The decree of the District Court dismissing the bill is affirmed.

COMMENTARY: In other cases the United States Supreme Court has held that a manufacturer cannot control the resale price of his product

when he actually parts with title to the product, even though the wholesale or retail distributors are nominally agents. In this case, however, the wholesalers and retailers by whom the lamps were sold were *bona fide* agents of the General Electric Company. The company owned the goods until they were sold to the ultimate users. A distributor did not pay for the lamps received from the company until they were sold. The General Electric Company carried the insurance and paid the taxes levied on stocks of lamps in the agents' hands. The company had taken every possible step to maintain a true agency relationship with its wholesale and retail distributors. Hence, it was free to stipulate the prices at which the goods were to be sold. The court could not logically have reached a different conclusion in this case.

The purpose of the General Electric Company in utilizing an agency plan of distribution was not brought out in this case. One of the effects of the plan, however, was to standardize the retail prices for the company's lamps. The decision of the Supreme Court in this case shows that a genuine agency plan of distribution affords a means whereby a manufacturer who desires to standardize the retail prices for his goods can accomplish that result. An agency plan of distribution, however, is cumbersome and more expensive than outright sale. The unsoundness of the court decisions which have resulted in preventing manufacturers from using direct means of checking unscrupulous price cutting[6] is emphasized by this case, which shows that those decisions can be circumvented by the employment of a real agency plan, just as they can be circumvented by the operation of wholesale and retail stores by a manufacturer.

The reasoning of the court on the second point, whereby the validity of the license to the Westinghouse Company was upheld, is so clear and logical that further comment would be superfluous.

March, 1927 M. T. C.

[6] See Federal Trade Commission *v.* Beech-Nut Packing Company, 3 H.B.R. 479.

Wentworth Food Company[1]

MANUFACTURER—FOOD PRODUCTS

Price Maintenance—*By Manufacturer with One-Price Policy.* Although price cutting was severe on the food products which it manufactured, the company decided to make no change in the list or advertised resale prices and to continue to advertise the resale prices. The company followed a one-price policy, offering the same terms to wholesalers, chain store companies, and independent retailers buying directly, and in view of this policy the company did not deem itself responsible for the price cutting.

Warehousing—*Sale of Futures to Avoid—Use of Free Deal.* Because of the seasonal nature of the raw material entering into one of its food products, a company's production of that product was highly seasonal. In order to avoid warehousing large quantities of the finished product at the height of the production season, the company sold futures to grocery wholesalers, chain store grocery companies, and independent grocery stores. To stimulate sales of futures, the company offered a free deal with each futures purchase of 10 or more cases.

(1926)

The Wentworth Food Company manufactured in package form under the Wentworth brand a dozen food products in common use. The company sold to grocery wholesalers, to chain store grocery companies, and to those unit retailers whose yearly purchases at least equaled those of an average wholesaler. Since its organization in 1900, the company had advertised its brand extensively in magazines with national distribution, on street car cards, and in newspapers; advertising appropriations had been increased proportionately with the growth in sales. In its advertising the company regularly had stated the retail prices at which it expected its products to be sold. With the rapid development of chain store grocery companies from 1910 to 1926, the company had observed an increasing tendency on the part of chain stores, as well as on the part of some unit grocery stores, to cut prices drastically. One of the 12 Wentworth items, referred to as Product A, was particularly subject to price cutting, frequently being sold for less than the cost price to the price cutters. Wholesalers often complained that there was no profit for them in that prod-

[1] Fictitious name.

uct, or even in the other Wentworth products, inasmuch as they were forced to sell below list prices to independent retailers who competed with chain stores.

It seemed evident that Product A, together with the highly advertised products of some dozen other food and grocery specialty manufacturers, was chosen by price cutters as a suitable product on which to exploit the manufacturer's advertising by cutting the price. In view of the fact that it consistently had followed a one-price policy, the Wentworth Food Company did not consider itself responsible for the general price cutting on its product. To all to whom the company sold directly it granted a trade discount of 10% off list prices and a cash discount of 2% for payment within 10 days; list prices were those at which the company expected wholesalers to sell to retailers. The retail selling price stipulated in the company's advertising of the product on which price cutting was prevalent allowed a retailer a 20% gross margin if he bought from a wholesaler. Chain store companies and unit retail stores which bought directly from the company had a gross margin on the item, if they maintained the specified resale price, of 29½%.

The company under no circumstances granted concessions from its list prices. It did, however, offer a free deal in Product A. That free deal, which consisted of one case of the product free for each 10 cases purchased, was offered to wholesalers, chain store companies, and retailers buying directly in order to stimulate their purchases of futures, and the free deal applied only to futures purchases. This was the only product in which the company sold futures or offered free deals. The chief raw material entering into the product was produced seasonally and was highly perishable. Since each season's crop came upon the market within a short period, there were high peaks in the company's production of the finished product. The company sold futures to avoid placing large stocks of the finished product in storage at the height of the production period. On their sales of the merchandise purchased from the company under the free deal offer, chain store companies and unit retail stores buying directly secured a gross margin of 35.1% if they maintained the specified resale price.

Wholesalers who secured the free deal from the company for their futures purchases of Product A in turn offered retailers

one case of the product free for each 10 cases purchased. The company, through its missionary salesmen who solicited orders from retailers for wholesalers' accounts, stressed this free deal offer to the retailers. If a retailer accepted the free deal offer and sold at the stipulated resale price, his gross margin was approximately 27%.

Wholesalers repeatedly sent inquiries to the company or interrogated the company's salesmen to learn if any extra quantity or special discount was granted to chain store companies. The Wentworth Food Company or its salesmen always replied in the negative, stating that prices were the same for every direct buyer, namely, 10% off list prices less 2% for cash. Furthermore, the company advised its customers that in the sale of futures in Product A, chain store companies were not allowed to buy a disproportionate share; on the contrary, orders for futures were filled so that wholesalers, unit retailers purchasing directly, and chain store companies received shares proportionate to their regular purchases of the item.

It was often said among wholesale grocers and even written by them in trade journals that there was no profit for them in Wentworth foods because they had to cut the list prices in order to sell to retailers who were in competition with chain store companies. The Wentworth Food Company was disturbed by these rumors even though sales to wholesalers had shown substantial increases each year. It was the conviction of the company, however, that Wentworth products required little selling effort on the part of wholesalers and that the wholesalers probably could reduce their 10% gross margin and still make as much as they did on other products which they regularly carried and which did require selling effort.

The Wentworth Food Company was of the opinion that advertisements to consumers which did not show the retail prices of the articles advertised were not complete. The company also stated that advertising of the resale prices prevented retailers in the more remote sections of the United States from selling above the prices specified. The company was seeking wider distribution in those sections, and increases of a few cents a package in the prices of its products might interfere with its sales plans. Even with the prices stated in the national advertising, salesmen occasionally had reported that the products were sold by retailers at higher

prices in thinly settled territories. Moreover, the company deemed its advertising of the standard resale prices effective in assisting retailers who extended delivery and credit accommodation to their customers to sell Wentworth products at prices which allowed them adequate gross margins.

The company did not rely exclusively on its advertising to promote sales, but employed about 250 salesmen to cover the 60 territories into which the United States was divided for sales purposes. These salesmen chiefly solicited orders from retailers for designated wholesalers' accounts; a majority of the salesmen called upon wholesalers also for their orders, particularly in the early summer, when futures on Product A were sold for late summer and fall shipment. The general sales manager estimated that perhaps 10% of all orders received from wholesalers were to cover the orders obtained by the company's salesmen from retailers. He was convinced, furthermore, that many more orders were the result of the sales promotion activities of the salesmen.

The company did not want any of its distributors to sell its products at a loss, but it was of the opinion that so long as it maintained a one-price policy the solution of the price cutting on its products did not lie in its hands. The company did not know how much of its merchandise was resold at prices below the advertised resale prices. It did know, however, that many unit stores which gave credit and delivery service continued to sell Wentworth products at the specified resale prices even when the same products were being sold at drastic reductions by chain stores located in the immediate neighborhood.

In 1926 the company had its salesmen question some of the stores in which the most severe price cutting was done as to the common sense of selling at less than cost. The salesman's argument was, "If you will cut prices, why not at least get a dollar back for a dollar spent?"

In spite of the price cutting on its products, the Wentworth Food Company made no change in the list prices or in the specified resale prices and continued to advertise the resale prices. Yearly sales increases of Wentworth products had been highly satisfactory, advertising and sales expense ratios had not increased, and the company was sanguine about the future development of sales.

Commentary: This case has a point of significance for other manufacturers who are desirous of preventing price cutting on their products. It is to be noted, in the first place, that the severest price cutting was on the item on which free deals were given to stimulate the purchasing of futures. Drastic price cutting by retailers in most instances, not only on this article but on other articles as well, probably is the outcome of competition in reducing prices which begins gradually and mildly.

The initial cutting of retail prices on Product A of the Wentworth Food Company easily might have been caused by either one of two circumstances. The wide margin resulting from the free deal which was offered with a purchase of futures afforded an opportunity for an initial reduction in the standard wholesale and retail prices without loss. Thus there was a strong temptation to a merchant to reduce his price in the expectation of stimulating sales. The other factor which might have induced price cutting was the large inventories of the merchandise which merchants accumulated through the purchase of futures. A merchant who had a large stock might easily conclude to cut prices in order to reduce his inventory. As soon as the cutting of prices began from either of these causes, merchants were almost certain to vie with each other in offering price bargains and to extend the price cutting to other products in the line. It is to be concluded, therefore, that if a manufacturer earnestly desires to avoid the cutting of resale prices on his products, he should not offer special terms as inducement to the placing of larger orders than are needed for immediate merchandising requirements.

Inasmuch as the Wentworth Food Company had not been able to obtain general observance of its stipulated resale prices under the marketing methods that it followed, it would have been fairer for the company to omit the quotation of any resale prices in its advertisements. Those retailers who adhered to the advertised prices, to be sure, may have found that the advertising of the prices lessened the sales resistance that they encountered. Nevertheless, price cutting on Wentworth products was so prevalent that it is fair to assume that the consequent lessening of sales of Wentworth foods in stores that maintained prices was a disadvantage to them which more than offset their gain from having the prices advertised. The company could not logically take the position that it was advantageous to have the resale prices standardized and at the same time pursue a practice which was certain to result in price cutting.

The Wentworth Food Company had reached the conclusion that it was necessary for it to sell futures in Product A in order to avoid storing large quantities of goods at the height of the production season.

To judge the merits of that decision would require a detailed analysis of storage costs in comparison with the cost of the free deals that were offered. So long as the company continued to offer free deals to stimulate the sale of futures, however, it could not expect to secure general observance of its stipulated resale prices. Consequently, it would have been fairer to have omitted the quotation of any resale prices in its advertisements.

December, 1926 M. T. C.

Glencairn Company[1]

MANUFACTURER—FLAVORING EXTRACTS

Quantity Discount—*Annual Rebates to Customers Based on Year's Purchases.* A company manufacturing high-grade flavoring extracts decided to allow a quantity discount to all customers whose total annual purchases equaled or exceeded a specified amount. The amount of the discount to which a customer was entitled on the basis of his year's purchases was to be credited to his account at the beginning of the next calendar year and deducted from the company's sales of that year.

Quantity Discount—*Discount Allowed by Manufacturer on Retailers' Purchases from Wholesalers.* A company which manufactured high-grade flavoring extracts sold to some retailers directly, but encouraged those retailers to purchase from wholesalers. To retailers who purchased through wholesalers the company allowed a discount on all single orders which equaled or exceeded a specified quantity. Under this discount plan, the company made payment by check to retailers.

Price Cutting—*Discouraged by Reduction in Manufacturer's Trade Discounts.* A company manufacturing high-grade flavoring extracts sold to wholesalers, wholesale and retail buying associations, chain store companies, and large retailers. The company reduced the uniform discount off list prices which it allowed all these customers from 20% to 15%, at the same time introducing a quantity discount of 5% based on annual purchases and payable at the beginning of the year following purchase. The executives concluded that wholesalers did not take the quantity discount into consideration in quoting prices to retailers and that the reduction in the trade discount led wholesalers to grant fewer discounts to retailers and thus restricted price cutting by retailers.

(1926)

In 1919, the Glencairn Company, a manufacturer of high-grade flavoring extracts, was asked by several of its wholesale customers to increase the trade discount which it allowed purchasers. Instead of complying with this request, the company reduced that discount from 20% off list prices to 15% off list prices but offered, in addition, a quantity discount of 5% off list prices to be credited at the end of each year to the account of each customer whose purchases during the year had totaled at least $2,500. List prices were the company's suggested resale prices to retailers. This discount policy still was in effect in 1926.

[1] Fictitious name.

In 1923, the company offered a quantity discount to retailers who purchased its extracts from wholesalers instead of buying directly. The discount applied to individual orders of at least a gross of the company's two-ounce bottles of extracts, and amounted to 5% of the net cost to the retailers. When a retailer sent a wholesaler's receipted bill for an order of a gross or more to the Glencairn Company, the company sent the retailer a check for 5% of the net amount of the bill. The average unit purchase of a retailer was six dozen two-ounce bottles of the company's extracts.

After July 1, 1925, the quantity discount which the company allowed retailers not buying directly was computed on the basis of list prices of goods shown on the wholesalers' receipted bills rather than on the net amounts of the bills. This change was made because the executives concluded that use of the net amount penalized retailers who, because of their large purchases, their cash payments, or their strong credit positions, received extra discounts from wholesalers.

The company did not allow this discount to retailers who purchased directly; they were offered the same discounts offered wholesalers and other customers buying directly. In no instance did the company offer customers free deals, that is, so much merchandise free with each purchase of a specified quantity. The company avoided such a policy because of the possibility of its leading customers to overstock.

The company allowed all customers who purchased directly a cash discount of 1% off net price for payment within 10 days. Under no circumstances did the company at any customer's request deviate from these discount policies.

The company sold to wholesalers, both service and cash-and-carry, to chain store companies, to wholesale buying pools, to retail buying associations, and to unit retailers who refused to buy other than directly and whose yearly purchases were reasonably large. Sales to unit retail stores were discouraged, however, and those customers regularly were urged to purchase from wholesalers. In 1926, the company had on its books from 700 to 800 accounts of wholesalers, which included wholesale buying associations, retail buying associations, cash-and-carry wholesalers, and service wholesalers, about 400 accounts of unit retail stores, and 30 accounts of chain store companies. It did not sell to

brokers or to desk jobbers, that is, jobbers who took orders but maintained no stocks. In 1925, of total net sales 64% were made to wholesalers, 18% to chain store companies, and 18% to other retailers.

The executives of the Glencairn Company could see no reason for refusing to sell to cash-and-carry wholesalers, particularly since most of the company's cash-and-carry wholesale customers were located where the other wholesalers gave poor delivery service. Retailers seemed to have no objection to paying cash for goods when they had to call for them. The company had no objection to selling to retail grocery buying pools or wholesale buying pools and had several of each of these types of organizations as regular customers. Retail buying pools which bought from the company were located usually in cities where chain store companies were not strong. The company consistently had refused requests by chain store companies for a larger discount than that given to wholesalers. Drop shipments were an almost negligible percentage of the company's total sales, and in no instance did the company make drop shipments outside of a wholesaler's immediate vicinity. In a city as large as Boston, drop shipments amounted to about 5% of sales. When a chain store company purchased through a wholesale grocer, that shipment usually was dropped to the main warehouse of the chain store company. Shipments for all orders received directly from chain store companies were made to the main warehouses of those companies.

The company had national distribution for its extracts, but in some territories, particularly in the Rocky Mountain district, that distribution was thin. In 1926 the company was employing 22 salesmen, including 3 missionary salesmen. The salesmen called on each customer three times a year except in the Rocky Mountain district, where they called on each customer only once a year. In no instance did the company prepay freight. It had warehouses in Detroit, Chicago, Philadelphia, and San Francisco.

The company advertised in national mediums from 1919 to 1922 inclusive. It did less of this advertising in 1922 than in the preceding years and in 1923 it discontinued national advertising entirely. After 1923 it confined its advertising to local newspapers and to street car advertisements and depended more and more upon its 22 salesmen to promote the sales of its goods. In 1926 none of the company's competitors were advertising

nationally. The company occasionally had placed advertising directly with radio broadcasting stations. In some instances this advertising had been highly successful. In one city, for example, a grocery store doubled its sales of the company's products as a result of 12 radio talks broadcasted in that city. These talks were given by a domestic science lecturer who referred during his lecture to Glencairn extracts as high-grade flavorings. At the end of the lecture it was stated that the Glencairn Company would send a cookbook free to anyone writing for it. About 1,000 cookbooks were distributed as a result of the 12 talks.

The Glencairn Company had been in existence well over half a century, and its brand, Glencairn, for flavoring extracts was generally known throughout the United States. The company used only pure, unadulterated extracts. An executive estimated that two-thirds of the grocery wholesalers and retailers in the United States constituted a market for pure extracts. In 1926, the company was producing extracts in 16 flavors and 10 shades; it did not contemplate adding any new lines. Shades or colors in flavoring extracts were used to color jellies, cake frostings, and other foods. About 200 manufacturers produced approximately one-fourth of the flavoring extracts sold in the United States. A majority of those 200 manufacturers used pure extracts such as the Glencairn Company used. Only a few of them, however, had as old and well-established brands as Glencairn, and still fewer had as wide distribution. Other competition consisted of several thousand small producers most of whom did not use pure extracts; those manufacturers sold only locally, and often from house to house. Many chain store companies and many wholesale grocers had their own private brands of extracts. The executives of the Glencairn Company believed that practically all chain grocery store companies in the northeastern, the Pacific, the southern, and the middle western territories carried the Glencairn brand, although in the South and Middle West smaller stocks and less complete lines probably were carried. Most of the 30 chain store companies which bought directly from the company also carried their own privately branded extracts but, in the opinion of the executives of the company, could not afford to discontinue the Glencairn brand. The company did not manufacture private brands for any of its customers.

Extracts were not perishable; in fact, the executives of the

Glencairn Company were of the opinion that the company's products improved with age. The per capita consumption of extracts, as compared with that of most other food products, was low. Sales of extracts commonly did not constitute more than ¼ of 1% of a retailer's yearly sales. The executives were uncertain as to the common figure for the retail stock-turn of flavoring extracts but estimated that for Glencairn extracts the stock-turn was about four times a year.[2] The executives knew of retail stores with an annual rate of stock-turn on Glencairn extracts as low as 2 times and of other retailers who regularly turned their stocks of those extracts 15 times a year. For the wholesale stock-turn of its products, the company had no common figure, but the executives stated that the highest rate they knew of had been 15 times and the lowest rate 2½ times a year.[3] Returns to the factory were not allowed by the company except in exchange for bottles of different sizes.

The approximate common figures for the size and frequency of orders received by the Glencairn Company from wholesalers, according to estimates by one of the executives of the company, were: a $175 order once every two weeks in the northeastern section of the United States; a $150 order twice a year in the southern territory; a $175 order eight times a year in the middle western territory; a $175 order eight times a year in the Pacific territory. The company classed the northeastern territory as good, the southern territory as poor, and the middle western and Pacific territories as fair. For chain store companies, the executives estimated that typical figures were a $350 order once a week in the northeastern territory and a $150 order once every six weeks in the western territory. The company's largest wholesale customer ordered, on an average, $450 worth of the extracts every seven days, and the largest chain store company purchaser placed an order for $800 every twelve days.

Since 1919 the company's sales had more than doubled, and the

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[2] Bureau of Business Research, Harvard University, Bulletin No. 52, *Operating Expenses in Retail Grocery Stores in 1924*. The common figure for stock-turn for 545 retail stores reporting was 10 times a year. See table opposite page 62 in that bulletin.

[3] Bureau of Business Research, Harvard University, Bulletin No. 40, *Operating Expenses in the Wholesale Grocery Business in 1923*. The common figure for stock-turn for 501 wholesale grocery firms reporting was 5.9 times a year. See page 67 in that bulletin.

cost of selling had dropped from about 27% of sales in 1919 and 28% in 1922 to 14% in 1925. Sales in 1922 had increased 60% over sales in 1919, and sales in 1925 were about 30% larger than sales in 1922. Executives of the company estimated that the increase in sales from 1919 to 1922 resulted chiefly from advertising and from the efforts of 16 missionary salesmen who solicited orders from retailers for the wholesalers' accounts. In 1923, however, when it discontinued advertising in national mediums, the company reduced its force of missionary salesmen from 16 to 3. At the same time, the company purchased 12 automobiles for the use of 12 of its remaining 22 salesmen; the regular sales force at that time included 19 men. The executives attributed the increase in sales after 1923 chiefly to the greater frequency of salesmen's calls upon customers. The decreased selling expense in 1925 resulted from a 66⅔% reduction in advertising expense and a 33⅓% reduction in salesmen's expenses. The same items were charged to selling expense in 1925 as in 1922, namely, salesmen's salaries and traveling expenses, advertising, and sales office expense. The automobiles bought in 1923 were charged as capital investment. The cost of their use and upkeep, however, was charged to selling expense.

The company retained 3 missionary salesmen to call solely upon retailers for the wholesalers' accounts. The other 19 salesmen were called factory salesmen, although they did some missionary work by soliciting orders from retailers for the wholesalers' accounts. The factory salesmen obtained orders from wholesalers and from chain store companies and other retailers who purchased directly. It was the salesmen's duty, however, to encourage the retailers with small accounts to purchase from local wholesalers. When time permitted, salesmen called at individual stores operated by chain store companies, not to solicit orders but to stimulate interest among the store managers. The company's 22 salesmen were paid salaries and an arbitrarily determined portion of profits at the end of the year.

It had been the company's experience that when its salesmen were withdrawn from a territory sales decreased appreciably almost immediately. In cities in which it did not have intensive distribution, the company frequently conducted sales campaigns. When such a campaign was to be conducted, the company sent several of its missionary salesmen into the city to announce the

campaign and to get retail orders for wholesalers; often newspapers in which the company was to advertise during the campaign sent men to call on retailers and discuss the company's plans. When the missionary salesmen had stocked the wholesalers, which usually took about two weeks, the local newspaper advertising was begun and was continued for six months. A second canvass of the retailers was made by the missionary salesmen about two months after the first, and a third canvass was made about three months later, a month before the newspaper advertising campaign was completed. The company estimated that in its old established territories its salesmen were responsible for obtaining from retailers about 20% of the orders which the company received from wholesalers, and that in the new territories its salesmen obtained about 80% of these orders.

The company expected its salesmen to emphasize the 5% quantity discount on annual purchases. At the beginning of each year, about January 15, when the accounts of customers whose purchases in the preceding year entitled them to the 5% discount were credited, the company wrote to the customers receiving the discount stressing the advantages of the company's quantity discount policy. Salesmen also were to impress upon retailers purchasing from wholesalers the desirability of purchasing a gross at a time so as to receive the discount of 5% offered by the manufacturer. In 1925, 22% of the company's total sales to wholesalers at list prices were in gross lots. The company estimated that on that same quantity of sales in 1925 it had paid the factory discount to retailers.

Executives of the company stated that the merit of the company's discount policy lay in the fact that it was to be expected that the wholesalers, restricted to a 15% trade discount, would give fewer discounts off the list prices to retailers than they had given when allowed a larger discount by the company, and that, as a result, retailers would be less prone to cut prices. The executives did not expect that the wholesalers in quoting prices to retailers would take into consideration the quantity discount which they might receive at the end of the year. In fact, the executives were convinced that wholesalers usually did not take into consideration the actual cost of particular items in quoting prices to retailers. The company suggested to its wholesalers

that their credits at the end of the year, if they had been eligible for the quantity discount, were clear gain to them.

The Glencairn Company made no provision in its accounts for the contingent liability represented by the quantity discounts. In January, after the books had been closed, the amount of the quantity discounts owed to customers was computed and credited to the proper customers' accounts. The amount of those credits was deducted from the company's sales of the ensuing calendar year.

Ordinarily, the total amount of the quantity discounts credited to customers in January of each year on the preceding year's purchases was less than 2% of the company's net sales in the preceding year. In 1925 the amount of the discounts was exactly 1¾% of total net sales. Sixty-eight customers were credited with the discount at the end of that year; 40 of those customers were wholesalers, including a few wholesalers' pools, each pool being counted as 1 wholesaler; the remainder included 14 chain store companies, 6 unit stores, and 8 retail grocers' buying associations. The 1% cash discount off the net price was invariably taken by chain store companies and usually was taken by wholesalers. Padding of orders to receive the quantity discount had not been discernible during the seven years that the plan had been in effect.

Commentary: The first question in this case to which attention is to be directed is on the merits of the rebate to each customer whose annual purchases amounted to at least $2,500. The test of such a rebate plan is whether it enables the grantor to effect savings in operating expenses commensurate with the amount of the rebates or else aids effectively in sales promotion.

In this particular case, the granting of rebates on annual purchases involved an uncertain contingent liability, for which the company made no provision in its accounts. The company had agreed to pay the rebates without being able to foretell exactly what sums it would be called upon to pay out at the end of the year. Despite this risk, which perhaps was no greater in this case than risks attendant upon some of the operating expenses, the granting of rebates on annual purchases had one advantage, at least, over a system by which discounts, determined by purchases in a period other than that to which they applied, were allowed on each purchase. The company's discounts were determined by current performance rather than by past performance, as would have been the case had the company granted discounts on a cus-

tomer's purchases during one year because the customer had bought a stipulated quantity in some preceding period.

In the face of the competition from private brands as well as from other manufacturers' brands, the company had an incentive to encourage regularity of patronage. Apparently it had secured only a small fraction of the potential market for its brand. When the company reduced its trade discount from 20% to 15% and altered its advertising plans, moreover, the offer of these rebates may have helped to allay criticism and opposition from large customers.

Despite these reasons for adopting the rebate plan, however, the evidence does not prove that the plan yielded results commensurate with its cost. There is no evidence to indicate that it induced economies in operating expenses. It was intended to stimulate regularity of patronage and to increase the volume of sales. Yet among 700 to 800 wholesale customers, only 40 were eligible for rebates in 1925, the seventh year after the plan was started.

To become eligible for the discount, it was necessary for a customer's purchases to average approximately $50 a week. It is significant that the purchases of so few customers reached that figure. The inference is that the rebate plan did not have a strong influence in stimulating sales, but amounted rather to a bonus to a few large customers.

In adopting the plan the company expected that it would be less conducive to price cutting than the previous plan of granting a 20% trade discount. How far the change in discount terms did discourage price cutting is uncertain. It is to be noted, however, that the company's chief reason for changing from net prices to list prices the basis on which factory discounts to retailers were paid was to avoid penalizing those retailers who received *extra* discounts from wholesalers. This evidence indicates that departures from the standard resale prices by wholesalers were by no means uncommon, and suggests a query as to whether the company's change in discount plans had had any effect on maintenance of resale prices. In deciding to change the basis on which the factory discounts to retailers were computed from net prices to list prices, it may be noted incidentally, the company apparently was giving tacit approval to variations of prices by wholesalers.

Although no injurious effects seem to have been traceable to the company's rebate plan, the experience of the company is not such as to encourage emulation of its practice. If the reduction of the trade discount from 20% to 15% had discouraged price cutting, and if the rebate plan subsequently had proved successful in stimulating sales, it is readily conceivable that that very success might have caused a resumption of price cutting on the brand. When only a few large

customers were receiving the rebates, they might have been content to retain them as "velvet." Had a majority of the company's customers been receiving the rebates, the conditions would have been similar to those which obtained when 20% trade discounts were granted, and most customers probably would have begun to take the rebates into account in quoting resale prices.

The company needed intensive distribution for its products; they were in the class of convenience goods. The company had succeeded in obtaining the patronage of a majority of the wholesale grocers in the United States, but that success cannot be attributed to the rebate plan. It is to be noted that the company itself credited its achievements during this period primarily to its sales organization, rather than to the rebate plan.

The second feature of the company's plans for promoting sales by means of discounts was the factory discount to retailers who purchased in lots of at least one gross from wholesalers. This quantity discount to retailers benefited the wholesalers in so far as it enabled them to effect savings in shipping expense or in selling expense. It benefited the Glencairn Company, perhaps, by encouraging retailers to carry a larger stock of Glencairn extracts. It also may have enabled the Glencairn Company to reduce its shipping expense by inducing the wholesalers who received these gross lot orders from retailers to purchase in gross lots from the manufacturing company rather than in smaller lots. It is a curious and perhaps a significant coincidence that the company estimated that 22% of its sales to wholesalers were in gross lots and that on 22% of its sales to wholesalers (at list prices) the quantity discount was paid to retailers who purchased from wholesalers. Whether the gain from the use of this quantity discount, either as a sales stimulant or as a means of effecting savings in operating expenses, was worth the cost is not apparent.

May, 1926

M. T. C.

Leicester Company[1]

SUBSIDIARY SALES COMPANY—FOOD PRODUCTS

Distribution Channels—*National Distribution through Use of Brokers and Missionary Salesmen.* The subsidiary sales company of a company manufacturing five food products had secured national distribution of the products. The company employed 88 grocery products brokers and maintained 20 sales branches. It also employed about 200 missionary salesmen, under the direction of the branch managers. The company considered brokers the most satisfactory means of keeping all customers stocked with its merchandise, of filling rush orders, and of providing current information to customers on prices, changes of policy, and so forth. Because it expected to introduce new products from time to time, the company planned to continue the use of missionary salesmen also, regarding them as an effective means of sales promotion.

(1927)

In 1927 the Leicester Company reviewed its policy of securing national distribution for its merchandise through the use of grocery products brokers and missionary salesmen. The Leicester Company, which was a sales subsidiary of the Leicester Manufacturing Company, sold the five food products manufactured by that company. The products were put up in package form and each bore an individual trade-mark. Leicester products had been distributed nationally for many years. In 1927 the manufacturing company anticipated adding a new product to its line from time to time. Its sales aim at that time was to attain 100% distribution for its products.

The Leicester Company in 1927 was employing 88 grocery products brokers to sell the five Leicester products to the grocery trade. The company also maintained 20 sales branches and employed approximately 200 missionary salesmen. With some exceptions, sales in all parts of the country were credited to brokers; the company's sales branches and its missionary salesmen were used chiefly for promotion work and to provide contacts between the company and the retail and wholesale grocers.

Leicester products were advertised extensively in magazines, in newspapers, and on billboards. The company also favored use of local advertising innovations and from its branches had its mis-

[1] Fictitious name.

sionary salesmen distribute much dealer-helps material to retail grocers.

The home offices of the manufacturing and sales companies were in New York City. Executives of the parent company were in charge of administration, accounting (which included control of both credits and collections), and advertising, but the president of the sales company controlled all sales and sales promotion policies. He was also a vice-president of the parent company, and as such his opinion had weight in the formation of credit and advertising policies.

In each of 20 cities in the United States strategically located as distributing points the sales company maintained a sales branch. At each branch there was a manager who was responsible for all sales activities in his territory, which included dealings with brokers selected for the territory, control, hiring, discharging, and training of missionary salesmen operating in the territory, maintenance of records of sales volume, and control of inventories of products and of advertising materials at his branch. In New York City and in New England the company used no brokers. The New York City branch manager with nine salesmen covered New York City, practically all the company's sales there being made directly to wholesalers, chain store companies, and a few unit stores. The Boston manager and his salesmen sold to the entire New England territory. Generally, the branch managers themselves dealt personally with the chain store grocery companies and with other customers buying directly in large quantities, always in cooperation, however, with any brokers representing the company in the customers' territories.

The company was convinced of the wisdom of permitting branch managers a reasonable measure of freedom in meeting the problems of their own territories. It was considered inadvisable for the New York office to lay down minor policies to be followed strictly by all branches alike. Each branch manager was held responsible, however, for yearly increases in sales in each of the company's products at an average selling cost per case which compared favorably with costs for a period of years preceding.

Each branch manager had from 5 to 20 missionary salesmen, whom he had hired and trained and over whom he had full supervision. The chief functions of the 200 missionary salesmen were to solicit orders from retailers for wholesalers' accounts, to dis-

tribute advertising materials, and to do various forms of consumer sales promotion work. Most of the missionary salesmen, however, also called upon wholesalers, usually in company with brokers' representatives, and certain of the missionary salesmen called only upon hotels, restaurants, railroads, steamship companies, and other customers buying directly in large quantities. The missionary salesmen were to aid retailers, where such aid was acceptable, by advising them as to arrangement of displays, by suggesting effective placement of the goods on their shelves, and by helping them sell Leicester merchandise over their own counters. The New York office stressed to the branch managers the importance of having the missionary salesmen aid the retailers in this way in selling Leicester products.

No rules were laid down by the New York office as to routing of missionary salesmen in the branch territories. In New York City and several other metropolitan centers the company did practically no missionary work, because in such markets the distribution of so large a percentage of its products was through chain store grocery companies. On the other hand, in comparatively sparsely settled territories, such as Oklahoma and Texas, missionary salesmen, by making sales to the retail trade for the accounts of wholesalers, were instrumental in securing a majority of the company's sales. The company could not determine accurately what proportion of its total sales volume was secured as a result of its missionary salesmen's efforts, but estimated that missionary sales to retailers for wholesalers' accounts ranged from 15% of total sales in highly congested cities to 90% in rural districts.

With the growth of cash-and-carry grocery wholesalers, an increasing number of retailers gave orders to missionary salesmen for the accounts of such wholesalers. To insure fulfillment of those missionary orders the company, in most instances in which the salesmen discovered that the retailers had not called for the goods ordered, had the missionary salesmen, all of whom were equipped with automobiles, deliver the goods to the retailers from the stocks of the specified cash-and-carry wholesalers. The New York office expected missionary salesmen to secure an average of from 20 interviews a day in congested cities to 5 interviews a day in thinly settled rural territories.

The company did not favor paying high salaries to missionary

salesmen to secure them permanently to the company. Although the rate of turnover among its missionary salesmen was high, the company did not look upon it as excessive or objectionable. The average salary which the company paid such salesmen was $35 a week, which, plus expenses, including salesmen's automobile expense, averaged about $3,500 to $4,000 a year per salesman. A majority of the company's missionary salesmen were young and energetic, and the company anticipated that as soon as they felt they had learned a modicum of selling they would resign for more lucrative positions unless the company had better selling positions open for them. The company deemed the high turnover a healthy condition, and as long as it could recruit young missionary salesmen with ambition it did not intend to employ a slower type of men who would be content to remain permanently with the company as missionary salesmen.

The company's terms to all direct buyers, where list prices were employed, were list prices less 10% less 3% less 2% for cash in 30 days, with sometimes a further discount of 2% or 3% for carload purchases. List prices were those prices at which wholesalers were expected to sell to retailers. In some territories the company employed no list prices but quoted a net price with a cash discount of 2% less a carload discount if allowed. Prices quoted by the company were subject to change only by authority of the New York office. Branch managers were at liberty to recommend that drop shipments be made or free deals offered, but such recommendations were always subject to the approval of the New York office.

The company sometimes made drop shipments into one wholesaler's territory at the request of another wholesaler, when the first wholesaler was not giving adequate support to Leicester products. In other instances, at a wholesaler's request the company made drop shipments to enable that wholesaler to meet competition from other products. The company granted free deals, that is, a certain quantity of goods free with each purchase of a specified quantity, on some of its products perhaps once each year, usually on products to which it was devoting little or no advertising; those products the company termed its "competition products" in contrast to its so-called "advertised brands," which it was advertising more extensively. All the company's brands had been advertised at one time or another.

The company did not attempt to force the maintenance of resale prices for Leicester products other than through argument and persuasion. Although it sold to wholesalers at a discount from list prices, it was aware that the wholesalers did not always resell to retailers at list prices. As a matter of fact, the company was of the opinion that manufacturers of food products could not afford to frown at occasional price cutting by retailers, since such price reductions often proved to be the most effective advertisements for both chain and unit grocery stores.

Branch managers were privileged to recommend sales promotional work for their territories. The New York office kept the branch managers currently informed of advertising innovations, displays, and sales promotion plans which were being used effectively in different territories, but with some exceptions did not oblige any branch manager to employ them. The extent to which an advertising or promotion policy used effectively in the New York branch territory was applicable to the Texas and Oklahoma territories, for instance, was to be determined largely by the managers in those territories. The branch managers also could recommend the appointment of brokers in their territories and could likewise suggest discontinuance or change of brokerage connections, but could take no action on these matters without authority from the New York office.

Branch managers were required to send to the New York office each week a report of competitive and sales conditions and a summary of the missionary salesmen's work with retailers. Monthly reports from the branches also were required showing closing inventory of merchandise, closing inventory of old stocks, closing inventory of advertising materials, cost of "retail work" by missionary salesmen for the sections into which the branch territories were divided, missionary salesmen's activities, and information as to brokerage connections. From the accounting department at the New York office each branch manager received a weekly report of accounts receivable for his branch, a monthly report on the condition of overdue accounts in his branch, and a quarterly report showing his branch's selling costs per case.

Through its policy of utilizing brokers the company hoped to provide for all customers a quick and ready means of access to a representative of the company. The company's 20 branch offices and its 200 missionary salesmen furthered this policy.

To keep the wholesale and retail grocers stocked and to have representation for its products always in evidence, the company deemed no agency so satisfactory as brokers. In most localities it was the company's experience that reputable grocery products brokers could be found who enjoyed positions of considerable local importance. By employing such men as its representatives the company secured for itself a similar standing in the brokers' communities. A large brokerage firm, the president of the Leicester Company stated, usually had a member who could be classed as a "$25,000 man." The Leicester Company could not afford to employ 40 such men to represent its products alone, but by using the brokerage firms it was able to secure the services of these high-grade representatives. Furthermore, brokers were always on hand, and grocers had become accustomed to writing or telephoning to them without waiting to be called upon. With brokers available, all the company's customers could be kept immediately and constantly posted as to prices, stocks, and other information they desired, while the brokers could pass on from the company to the grocery trade information as to new products, changes in policies, and so forth. For selling to chain store grocery companies, moreover, which because of their rapid rates of stock-turn frequently found it necessary to place rush orders, the company deemed the brokers a valuable agency. A broker could listen to proposals without committing the company; often a broker could secure sound business for the company by negotiation where an official or employee of the company, by the nature of the initial request, would have had to reject the proposal at the outset. The brokers, moreover, proved of value to the company because of their familiarity with local conditions and with the credit positions of local wholesalers and retailers.

The company paid the brokers from 2 cents to 10 cents per case sold, the amount depending upon the product, its salability, and the volume of sales within the territory in question; these brokerage commissions if figured as a discount off list prices ranged from 8/10 of 1% to 4%. The company judged that it could well afford to pay such commissions for the services rendered. With the continued growth of chain store grocery companies, the future of the high-caliber grocery products brokers, in the company's opinion, was not endangered in any way.

In 1926 the Leicester Company observed that some manufacturers who sold nationally advertised brands of food or other grocery products were discontinuing the use of missionary salesmen or at least beginning to question their worth in relation to the cost of maintaining them. Although some of the Leicester products were well established, others were comparatively new; this being the case, the company judged it expedient to continue to use missionary salesmen, inasmuch as it knew no other equally effective method of sales promotion. The company intended to employ missionary salesmen to promote sales and brokers to procure them until it ceased offering new products from time to time or until it was shown an economical justification for establishing 40 or more branch offices managed by high-salaried men with large regular sales forces.

Commentary: The practices set forth in this case raise a series of questions which are of common occurrence among manufacturers of grocery products and which also appear in various other industries. These questions relate to such matters as the use of brokers, the continued employment of missionary salesmen at a cost of $700,000 to $800,000 a year, the control of credits and collections by the accounting department, the use of free deals, and the high turnover of missionary salesmen. All these topics are of fundamental interest. Enough evidence is not furnished in the case, however, to warrant a critical discussion of the practices of the Leicester Company. The case is useful, nevertheless, in furnishing a record of the policies pursued by a large manufacturer of grocery products.

May, 1927 M. T. C.

CHICKAMAUGA COMPANY[1]

MANUFACTURER—CEREALS

SALES ORGANIZATION—*Use of Missionary Salesmen by Manufacturer Selling through Wholesalers.* A company manufacturing cereals maintained a force of regular salesmen who sold to wholesalers, as well as a force of missionary salesmen who solicited orders from retailers for wholesalers' accounts. Wholesalers were allowed the same gross margin on all orders, whether or not they were obtained by missionary salesmen. Although the company considered discontinuing the missionary sales force in a period of depression, it decided that the services rendered by these salesmen were an essential form of sales promotion.

(1921)

The Chickamauga Company maintained a force of regular salesmen who sold the company's products to wholesalers and another force of missionary salesmen, also known as specialty men, who called upon retailers to solicit orders which were turned over to wholesalers to be filled. Prior to 1919 the orders obtained by missionary salesmen were filled by shipments directly from the factory but billed through wholesalers. At that time drop shipments were discontinued, because it was believed that wholesalers would give better service if orders solicited by the company's missionary salesmen were turned over directly to wholesalers specified by the retailers. A wholesaler previously had received the same rate of gross margin on drop shipments as on Chickamauga goods shipped from his own warehouse. A wholesaler's gross margin was the same whether the order was taken by a Chickamauga salesman or by the wholesaler's own salesman.

Many wholesale firms were antagonistic toward missionary salesmen because of anxiety that a more extensive development of the scheme might tempt manufacturers to establish wholesale branches to the detriment of the interests of the wholesalers. During the depression in 1921 the board of directors of the Chickamauga Company considered discontinuing its missionary sales force, but the directors finally were persuaded by the general sales manager that the services rendered by these missionary men were essential to the company in pushing the sales of Chicka-

[1] Fictitious name.

mauga products more aggressively than they were pushed by wholesalers' salesmen.

During a period of 20 years the Chickamauga Company had developed and placed on the market 6 breakfast foods, including both prepared and unprepared cereals. Although the other products also were advertised in national magazines, the company's brand of rolled oats was used as a leader in national advertising. The same trade-mark and color scheme on the cartons identified all the products of the Chickamauga Company.

With the exception of three chains of retail grocery stores, the products were sold to all customers at uniform prices in order to discourage price cutting. A slight differential, however, was given for carload lots in preference to less-than-carload shipments. Sales statistics of the company showed that 50% of the sales of a new product during the first year that it was upon the market ordinarily were made by missionary salesmen, whereas not over 25% of the orders for established products were obtained by these salesmen. Ordinarily, the missionary salesmen did not call upon retailers who were selling Chickamauga products except to attempt to induce them to carry the full line; the missionary salesmen were expected to devote their efforts to retailers who were not familiar with the brand. The missionary salesmen instructed retailers who were prospective customers regarding the importance of a rapid rate of stock-turn and emphasized the fact that an order for Chickamauga products could be filled quickly from a nearby wholesaler. In this way stocks could be kept fresh, and the retailer could use his capital advantageously. When a new product was being introduced, the missionary salesmen worked closely in cooperation with the samplers.

A missionary salesman frequently took orders received from retail grocers to a wholesale grocer in order to induce the wholesaler to handle the line or to stock new products. If the wholesaler already was handling other Chickamauga products, he usually was pleased to have the complete line; if he was not carrying the line, he ordinarily was willing to accept orders already secured.

Claims for damaged goods frequently gave trouble to the Chickamauga Company. Although the packages were sealed as tightly as possible, vermin occasionally gained entrance. The company stood the loss in such cases either by replacing spoiled

goods or by refunding the amount paid for them. The damage claim department cooperated with the missionary salesmen, who were authorized to make adjustments on small claims. In territories where climatic conditions were uncertain, the missionary men purchased packages of Chickamauga products and also packages of competitors' products. These packages were sent to the home office of the company, where they were examined by the production department in order to ascertain the keeping qualities of the company's products as compared with those of competitors' products.

A missionary salesman was maintained in each state, except that Connecticut and Rhode Island were combined in one territory, Maine, New Hampshire, and Vermont in another, and New Jersey and Delaware in still another. A route list of every town in the territory was furnished to each salesman. The average territory required sixteen weeks to a trip. Some of the towns were visited three times a year while others were visited four times. The company had decided from experience that it was better to have a local representative, who would not make promises which the company was unable to keep, cover the same territory regularly rather than to have continual changes in the territorial assignments.

Commentary: The Chickamauga Company used its missionary salesmen to induce retail grocers who previously had not carried Chickamauga goods to place them in stock, and also to induce all retail grocers to purchase new products placed on the market by the company. The orders obtained by missionary salesmen were turned over to wholesalers specified by the retailers to be filled, and the wholesalers received their usual gross margin on such sales. In granting to wholesalers the regular trade discount on goods for which orders were obtained by the missionary salesmen, the Chickamauga Company not only was recompensing the wholesalers for the services which they performed in physically handling the merchandise and in performing the tasks of granting credit and making collections, but it also was remunerating them for services not performed in the solicitation of orders. As a means of avoiding friction with the wholesalers, that policy undoubtedly was expedient, provided the company continued to employ missionary salesmen.

Inasmuch as the manufacturing company in this instance found it necessary, as a practical matter, to grant the regular trade discount to

wholesalers on the orders obtained by missionary salesmen, a question naturally arises as to whether the circumstances warranted the company's incurring the expense of employing missionary salesmen. In an examination of the company's general marketing problem, one of the outstanding facts is that the company's product was of a sort for which intensive retail distribution was desirable. It was to the advantage of this company to have its products available for purchase by consumers in all retail grocery stores, in order to avoid loss of sales through deferment of purchase or substitution. The tasks of introducing new products and of bolstering up distribution of old products to attain complete coverage of retail stores were sales promotion tasks that primarily concerned the manufacturing company rather than wholesalers.

The Chickamauga Company had reached the conclusion that missionary salesmen were the most effective means of performing these sales promotion tasks, and no evidence was offered in this case regarding alternative methods of sales promotion. Aggressive methods of securing intensive retail distribution of the company's products were needed. The company chose to employ missionary salesmen for that purpose.

Under the circumstances, therefore, the full burden of the missionary work properly was assumed by the manufacturer.

December, 1926 M. T. C.

Nyanza Company[1]

MANUFACTURER—FOOD PRODUCTS

Sales Organization—*Reduction in Number of Missionary Salesmen to Decrease Sales Expense.* A company which manufactured and sold food products in package form employed 45 missionary salesmen to solicit orders from grocery retailers for wholesale grocers' accounts. The company estimated that approximately 50% of the orders received from wholesalers were the result of the activities of these salesmen. An analysis of the company's selling costs showed that for the portion of its sales volume which missionary salesmen helped to obtain the sales expense was about 20% of sales, whereas for the sales they had no part in obtaining the expense was about 8%. The general sales manager decided to reduce the number of missionary salesmen from 45 men to 30 during the following year and also to direct the salesmen to spend a larger part of their time in assisting retailers with merchandising problems.

(1926)

Late in 1926, the Nyanza Company, which manufactured and sold in package form seven food products, made an analysis of its selling costs. This analysis showed that for that portion of the sales volume which missionary salesmen had a part in obtaining, the sales expense approximated 20% of sales, whereas for that portion of the sales volume which the missionary salesmen had no part in obtaining, the sales expense was only 8.4%. The question was raised, therefore, whether the company should curtail its missionary sales work.

The Nyanza trade-mark was so well established that in 1924, when the company added a new product to its line, it had been able to secure a satisfactory volume of sales for the new product without advertising it. Although the company was one of the leaders in its field, it was in competition with approximately 80 firms, some of which were large and some small.

The Nyanza Company sold to chain store grocery companies, cash-and-carry wholesalers, service wholesalers, retail buying associations, and a few large unit stores. All customers buying directly received the same terms, namely, list prices less 15%, less 2% for cash in 10 days. List prices were those at which the company expected wholesalers to resell to retailers. Except in

[1] Fictitious name.

those parts of the United States where the company maintained branch sales offices or resident salesmen, its products were sold through food brokers.

In Boston, Pittsburgh, Chicago, San Francisco, and New York City the company maintained sales branches and carried stocks. At each branch there was a branch manager and from one to three salesmen; there were ten such salesmen divided among the five branches. These salesmen called on the grocery wholesalers, the chain store grocery companies, and the retail grocery buying associations in their territories once each week.

In each of five cities, Philadelphia, Kansas City, Detroit, Indianapolis, and Los Angeles, the company maintained a resident salesman. At these points also the company carried stocks. The resident salesmen, like the branch salesmen, were expected to visit the customers in their territories once each week.

To secure distribution in territories where it had neither sales branches nor resident salesmen, the company employed approximately 150 food brokers. Neither the branch salesmen, the resident salesmen, nor the brokers sold in each other's territories. Brokers' commissions varied from 2% to 3% of the selling price, according to the territories and the capabilities of the brokers. The company shipped goods on consignment to warehouses in 10 cities where it employed brokers. The brokers ordinarily solicited orders daily from customers in their territories.

In addition to the 5 resident salesmen and the 5 branch managers and their 10 salesmen, the company employed 45 missionary salesmen. The company estimated that approximately 50% of the orders which it received from wholesalers were the result of the activity of the missionary salesmen. On the older, well-established products, not more than 15% of the orders received from wholesalers could be traced to missionary efforts; on the newer products it was estimated that at least 60% of the orders from wholesalers were the result of missionary efforts. No missionary salesmen were used in New York City, inasmuch as 70% of the company's sales in that city were made to chain store companies and the remainder were either to cash-and-carry wholesalers or to independent retailers.

The 45 missionary salesmen were controlled by the manager of the personnel department. The manager of that department, resident at the main office, also had charge of the main office

clerical force. The personnel department, the executive sales department, and the advertising department all were under the direction of the general sales manager. The personnel department was responsible for the hiring, discharging, and training of missionary salesmen. It was charged with all salaries and expenses of missionary salesmen.

The executive sales department, under the general sales manager, was responsible for everything pertaining to use of brokers and regular sales force, which included branch managers, branch salesmen, and resident salesmen, and also for the routine of missionary salesmen in the field. This department was charged with all expenses of brokerage, sales force supervision, branches, branch salesmen, and resident salesmen.

The manager of the advertising department, also under authority of the general sales manager, handled all advertising matters with the company's advertising agency and controlled the company's advertising policies, working in cooperation with the managers of the executive sales and personnel departments. The advertising department was charged with all expense for advertising activities, including cost of advertising materials, no matter by whom or to whom distributed. Any merchandise which was distributed free to consumers was looked upon as an advertising expense.

Exhibit 1 is a chart of the company's sales organization.

The Nyanza Company did not advertise retail selling prices. Nevertheless, the company wished its products to be sold to consumers at reasonably uniform prices and, with this end in view, avoided practices which, in its opinion, would encourage retailers

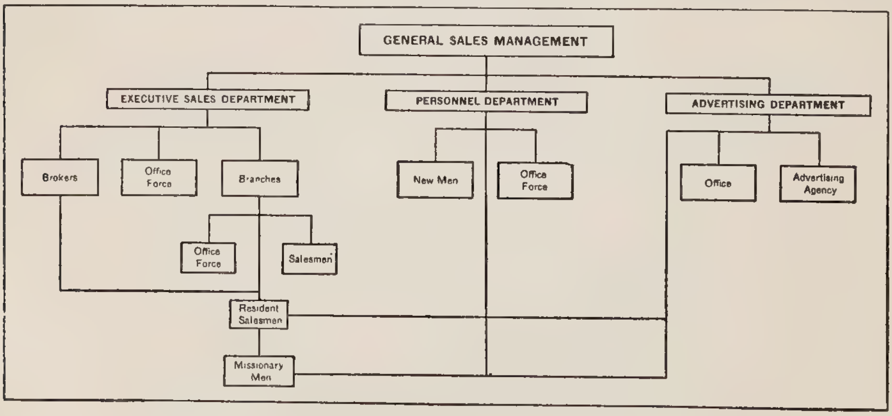

Exhibit 1. Sales Organization of Nyanza Company.

to sell its products below the customary prices. The usual price of the products was 25 cents a package in unit stores and 23 cents a package in chain stores. These prices in general were not cut seriously. It was the company's practice to remonstrate strongly in any instance of excessive price cutting on its products and to refuse to sell directly to any retailer who consistently offered the products for less than the usual price.

The company did not offer free deals. Neither did it make drop shipments into any territory at the request of desk jobbers, wholesalers located in other territories, or at the request of other buyers, where such drop shipments would interfere with the sales of wholesalers in that territory who regularly stocked and distributed Nyanza products. The retail stock-turn on the company's products was approximately 4 times a year, and the wholesale stock-turn was about 6 times a year.

The company's missionary salesmen restricted their calls to what the company termed A and B stores, usually visiting each A and B store three times a year. The stores were rated as A, B, or C by the missionary salesmen themselves, and the salesmen frequently revised their ratings. Ratings were based on the points listed below. The company recognized that the ratings could not be exact, that different salesmen would arrive at different estimates, that the same salesman's judgment of a store would vary from time to time, and that a store in a small town, for instance, would receive a different rating from what that same store would receive if located in a large city. The ratings nevertheless were sufficiently uniform and reliable to be an aid in sales promotion work.

Physical characteristics

1. Location and size of store
2. Modernness of store equipment
3. Number of clerks
4. Size and condition of inventories
5. Ratio of grocery specialty sales to sales of staple groceries

Merchandising characteristics

1. Merchandising methods of store
2. Capabilities of clerks
3. Interest in cooperative buying and advertising
4. Advertising practices
5. Average quality of merchandise handled

Financial position

1. Credit rating
2. Probable amount liquid assets

The analysis of selling expenses which the Nyanza Company made late in 1926 showed that of its total sales 50% were made to service wholesalers and retail buying associations at an average cost of about 20% of sales, and that the remaining 50% were divided 33.3% to chain store companies, 8.4% directly to large unit stores, and 8.3% to cash-and-carry wholesalers, and were made at an average selling cost of 8.4% of sales. The missionary salesmen assisted in securing that half of the sales volume which cost the company about 20% of sales, but were thought to be of no assistance in securing the remaining volume at the lower cost of 8.4%. Exhibit 2 shows the company's selling expenses as percentages of total sales.

In view of the expense involved in using missionary salesmen, the general sales manager decided to reduce the missionary sales force from 45 men to 30 men in 1927 and to observe what effect this reduction had on the sales volume. He also asked the personnel manager to direct the missionary salesmen to spend a larger part of their time in assisting retailers with their merchandising problems. The missionary salesmen were trained so as to be able to advise retailers concerning merchandising methods, accounting problems, proper methods of display, purchasing policies, and retail store management. With these duties

Exhibit 2

Selling Expenses of Nyanza Company for 1926, as Percentages of Total Sales

Selling Departments	Expenses as Percentage of Total Sales Volume
General Sales Management	.27%
Executive Sales Department:	
Supervision	.32
Brokers	1.63
Branches, resident salesmen, and branch salesmen	1.66
Personnel Department:	
Training, supervision, and salaries of missionary salesmen—including clerical expense	5.19
Advertising Department:	
Including material distributed	5.67
Special marketing research	.18
	14.92%

of expert advisors added to the missionary salesmen's regular task of soliciting orders for the company's seven products, each salesman was not expected to make more than 10 or 12 calls a day.

COMMENTARY: Here we have an instance in which a manufacturer has undertaken to analyze the services and the costs of employing missionary salesmen. The question was not in regard to how much the missionary salesmen had contributed to the company's prosperity in earlier years, but in regard to the usefulness of that method of sales promotion in 1927. Inasmuch as 60% of the orders from wholesalers for comparatively new products and only 15% of the orders for the well-established products were originated by missionary salesmen, the inference is clear that the continued employment of missionary salesmen was dependent to a substantial degree upon the company's plans for introducing new products in the future.

The experience of the Nyanza Company in having its missionary salesmen render advice to retailers on store management problems does not furnish an encouraging precedent. The results do not appear to have been worth the cost. That conclusion is based on the fact that the expense of marketing that portion of the company's product which was influenced by the activities of the missionary salesmen was about two and one-half times as great as the expense of marketing an equal volume of merchandise through other channels. One-half of the company's sales were made to chain store companies, cash-and-carry wholesalers, and a few direct buying retailers. For those sales the marketing expense was estimated at 8.4%. Since for all sales the marketing expense was 14.92%, the expense of marketing the goods sold to service wholesalers must have been 21.44%. This difference was accounted for largely by the expense of operating the missionary sales force.

Under these circumstances, the company decided upon a conservative course of reducing the number of missionary salesmen from 45 to 30. The facts stated in the case suggest that a further analysis of the results of the activities of the company's missionary salesmen would lead to an even greater curtailment of that type of sales promotion in the future, except during periods when new products were being placed on the market.

April, 1927 M. T. C.

Sussex Company[1]

MANUFACTURER—SOAP

Sales Organization—*Discontinuance of Missionary Sales Force.* A well-established company manufacturing soaps, for which it had secured widespread distribution, employed 150 missionary salesmen to solicit orders from retailers for wholesalers' accounts and also to obtain wholesalers' orders. In addition to selling to wholesale grocers, the company sold directly to chain store grocery companies and to unit grocery stores, at the same prices it charged wholesalers. In view of the fact that the growth of cash-and-carry wholesalers was tending to reduce the number of orders taken by missionary salesmen, that many orders taken by them were not delivered by wholesalers, that the rate of turnover of the missionary sales force was high, and that direct sales to retailers were increasing, the company decided to discontinue the use of missionary salesmen and to employ only 25 salesmen to call on wholesalers, chain store companies, and independent retailers buying directly.

Price Maintenance—*Retail Prices Not Specified by Manufacturer.* A company manufacturing soap had secured widespread distribution for its products, selling to wholesalers, chain store companies, and directly to retailers. The company did not attempt to specify or maintain standard retail prices for its products. Reasonable price cutting on manufacturers' advertised brands and other forms of price concessions by retailers were not considered undesirable by the company, but were looked upon rather as indications of keen merchandising methods.

(1926)

The Sussex Company, a manufacturer of soaps, employed 150 missionary salesmen to solicit orders from retailers for wholesalers' accounts and also to call upon wholesalers for their orders. The annual cost of maintaining this sales force was approximately $600,000. Late in 1926 it was suggested that perhaps the results of the salesmen's work did not warrant this expenditure and that it might be advisable for the company to discontinue its missionary sales efforts. The company had used missionary salesmen since its organization in 1900.

All the company's soaps were sold under a widely advertised trade-mark. Advertising and the dependable quality of the products had secured for the company widespread distribution. It was the company's opinion that, in view of the strong consumer

[1] Fictitious name.

demand, few wholesalers or retailers could afford not to carry Sussex soaps. Advertising appropriations had been increased proportionately with the annual increases in sales.

In addition to selling to wholesale grocers, the company sold directly to chain store grocery companies and to many unit grocery stores. The company maintained a one-price policy, its terms being 10% off list prices, 2% for cash, and 2½% for orders in carload lots; list prices were those at which the company expected wholesalers to sell to retailers. Chain store grocery companies and unit stores which bought directly, therefore, secured goods at the same prices as were paid by wholesalers. The company did not offer free deals.

The company maintained four division offices: at New York City, St. Louis, Atlanta, and San Francisco. The manager of each division supervised approximately one-fourth of the company's sales force. The divisional managers were expected to spend about 80% of their time traveling with their salesmen, and it was usually they who secured orders from the large chain store grocery companies. All summary sales records were compiled at the central office in New York City, and all credit responsibility was concentrated there.

To facilitate deliveries to its customers, the company maintained warehouses in 20 cities. Each of the 20 warehouse branches filled orders from customers and extended credit to those whose names appeared on an approved credit list furnished by the central office. Billings were made from and payments received at the four divisional offices. The Sussex Company prepaid freight on shipments to customers. The minimum order that the company would accept was 5 boxes, which weighed approximately 200 pounds. It would make drop shipments to retailers in 5-box lots at the request of a wholesale customer, or at the request of a so-called "desk jobber" provided the jobber also bought for stock a quantity equal to the average stock of Sussex products carried by wholesalers in his territory. In the case of retail cooperative buying associations, the company would make drop shipments at the request of members whose places of business were outside the towns in which the associations' headquarters were situated, but not to members located in those towns, and never in less quantity than 5 cases. Total yearly drop shipments of the Sussex Company were not over 2% of total sales.

In 1920 the Sussex Company had anticipated a substantial increase in direct selling to retailers by soap manufacturers and accordingly had undertaken to increase its direct sales. Except in the southwestern and far western states, the company endeavored to secure at least 1 retailer as a direct buyer in every town with a population of 5,000 or more. In towns with populations of approximately 10,000, the company sought to have 2 or 3 direct retail accounts, and in larger cities it wished to sell directly to 1 in every 16 grocery retailers.

In 1926 the company was selling directly to about 8,100 independent retailers. In New York City, for several years, the company had sold almost exclusively to chain store grocery companies and unit stores. In 1926, from 60% to 70% of the company's sales in that city were made to chain store grocery companies, and the remainder were made to about 1,500 unit grocery stores. The company sold directly to about 600 retailers in Chicago. Of total sales in 1926, the company estimated that it made from 50% to 60% to wholesalers, from 20% to 30% to chain store grocery companies, and from 10% to 20% to unit stores and retail cooperative buying associations. In cities of from 250,000 to 300,000 inhabitants, not more than 50% of the company's total sales were made to wholesalers.

The most desirable type of retailer to whom to sell directly, in the company's opinion, was one whose clientele included permanent customers and also transient customers who made cash purchases in passing, attracted by the convenience of the store's location. For a store to qualify as a direct purchaser, the company deemed that its permanent clientele should include from 150 to 200 customers who made purchases regularly either for cash or on credit; its annual sales should be $100,000 or over; it should grant credit and render delivery and telephone service; and it should advertise, by frequent inserts in local newspapers, by advertisements in motion picture theaters, by distribution from house to house of handbills, or at least by attractive window displays.

Reasonable price cutting on manufacturers' nationally advertised brands, offers of combination purchases at reduced prices, and other forms of price concessions on the part of retailers were not deemed undesirable by the company, but were looked upon rather as indications of keen merchandising methods. However,

retailers who were extreme and predatory in their price cutting were regarded as undesirable direct purchasers for the company's products.

The Sussex Company did not advertise retail selling prices for its products. Any attempt to specify and maintain standard retail prices for Sussex products, the company was convinced, was inadvisable. With the growth of the cash-and-carry grocery stores and with many excellent brands of soaps on the market, women shoppers seemed to the company to be more and more attracted by price inducements. An investigation made in 1926 showed that few of the unit stores which bought directly priced Sussex products lower than the prices prevailing in chain stores. It was the experience of the company's sales manager that the chain store grocery companies were the leaders in price setting in their localities, and that seldom, and never for a protracted period, did the unit stores which bought directly quite meet the price cuts of the chain stores. In his judgment it was not necessary for unit stores which offered credit and delivery service to sell at prices as low as were offered by chain stores in order to secure adequate sales volumes.

After the Sussex Company had decided upon a retail grocery store to which it wished to sell directly, the company's representative, either the district manager or a salesman, ascertained the wholesaler from whom the retailer usually purchased Sussex products. The representative then interviewed the wholesaler and told him of the company's desire to sell to the selected retailer directly. Usually that retailer was one of the wholesaler's best customers. To meet the wholesaler's objections to the company's plan of direct sale to the retailer, the company's representative cited instances, stating names and places, of wholesalers whose total sales of Sussex products had increased when the company had begun to sell directly to some of their customers. The explanation offered was that the keen selling methods adopted by the retailers to whom the company had chosen to sell directly had advertised Sussex products and created a local demand that led other retailers in the neighborhood to stock more Sussex products. This argument usually appeased the wholesaler. It was the sales manager's experience that wholesalers were beginning to expect more and more direct selling to retailers by soap manufacturers. The growing tendency toward direct selling, in his opinion, was partly

to be accounted for, particularly in the case of soaps, by an overproduction of nationally advertised brands.

For three years ending in 1926 the company had analyzed as carefully as was compatible with reasonable expense the work of its missionary salesmen. This analysis showed that total annual missionary orders taken for wholesalers' accounts from 1921 to 1926 inclusive were approximately 50% of total annual sales to wholesalers. Of missionary orders taken in cities, approximately 60% were undelivered, and of those taken in rural districts 20% to 50% were undelivered. The growth of cash-and-carry wholesalers had tended to reduce the number of orders taken by missionary salesmen. The only way in which missionary salesmen could be assured of delivery on orders taken for the accounts of cash-and-carry wholesalers was for the salesmen to deliver the goods themselves from the wholesalers' stocks.

In the five years prior to 1926, missionary salesmen obtained orders on only about 50% of their calls, and from 35% to 40% of their time was spent in traveling. In territories where, for test purposes, missionary salesmen had been withdrawn for periods of from six to eight months, total sales to wholesalers had shown no decrease during a twelve months' period dating from the withdrawal of the salesmen; invariably, sales to wholesalers had declined in the first few months, but during the remainder of the year they had increased sufficiently to compensate for the loss.

The rate of turnover of the missionary sales force was high, and this was vexatious to the retailers and to the division managers; the former often had just become acquainted with a salesman when another appeared in his place; the latter were continually having to find, train, and route new men.

In view of these facts and the growth in its direct sales to retailers, the company decided to discontinue the solicitation of orders from retailers for the accounts of wholesalers. It accordingly released its 150 missionary salesmen and employed only 25 salesmen to call on wholesalers, chain store companies, and independent retailers who bought directly. The company did not intend to appropriate immediately for other sales promotion work a sum equal to that previously expended for maintenance of the 150 missionary salesmen, but it was confident that it could use profitably part or all of such a sum in some form of sales pro-

motion other than missionary sales work, if sales promotion appeared to be necessary.

COMMENTARY: On the question of discontinuing the employment of missionary salesmen, the evidence seems to be conclusive. The company was not introducing new products; it had attained intensive distribution, and its tests indicated that its volume of sales would not suffer through discontinuance of that means of promotion. In view of the large expense which the missionary sales force entailed and of the evidence that results commensurate with the expense were not being obtained, the company was not warranted in continuing to use the missionary salesmen.

Whether the company should have discontinued the employment of missionary salesmen at an earlier date is a question on which the evidence submitted does not throw full light. One of the significant statements in the company's analysis of its problem, however, is that the growth of cash-and-carry wholesalers had decreased the number of missionary orders taken. It is common knowledge that the number of cash-and-carry wholesalers had increased rapidly during the two years which preceded the company's decision. That change in conditions in wholesale trade may have warranted a decision in 1926 that would not have been reached at an earlier date.

As the company's analysis showed, the work of missionary salesmen is rendered appreciably less effective when the retailers on whom they call buy chiefly from cash-and-carry wholesalers. If a missionary salesman does not accept orders from retailers to be filled by cash-and-carry wholesalers, the salesman may find it more difficult to secure orders. If the salesman does accept orders for the accounts of such wholesalers, there is a strong likelihood that a substantial portion of the orders will not be filled, since a cash-and-carry wholesaler waits for his customers to come to his store to obtain merchandise ordered. If cash-and-carry wholesalers continue to increase in number and if chain store companies continue to grow, it seems to be quite possible that these circumstances may lead other companies now employing missionary salesmen to discontinue that practice.

On first examination, the company's policy of selling directly to selected retail grocers on the same terms as to wholesalers seems questionable, because of the likelihood that that policy would undermine the position of the wholesalers and ultimately make the company dependent for distribution entirely on chain stores and retailers who bought directly. The description of the company's method of allaying opposition from wholesalers sounds unconvincing.

Despite these unfavorable appearances, however, the company actu-

ally was giving a substantial degree of protection to wholesalers. That protection accrued from the adherence to minimum orders of at least 5 boxes, 200 pounds. Many retailers could not buy such a large quantity at one time and therefore had to make their purchases from wholesalers. Additional protection was provided by the 2½% discount for car-lot orders, which were likely to be placed only by wholesalers and large chain store companies. These sorts of protection for the wholesalers have strong economic justification, because they give the wholesalers an opportunity to render their most useful service in parceling out merchandise in smaller lots than the manufacturer can afford to handle.

The company's attitude toward price cutting was consistent. It had decided not to attempt to standardize retail prices and it manifested no hypocrisy on that subject. The Sussex Company, as a matter of fact, however, seems to have averted price cutting more successfully than have several manufacturers who loudly protest against price cutting on their products. The Sussex Company adhered to a one-price policy. The restrictions that it placed on drop shipments eliminated much of the danger of price cutting from that source. The company offered no "free deals" and it advertised no retail prices. As a result of these policies, little temptation to cut prices was offered. This case furnishes an unusually good example of basically sound judgments which yield better results than suave pronouncements not backed up by fundamentally sound practices.

April, 1927 M. T. C.

Mohawk Soap Company[1]

MANUFACTURER—SOAP

Sales Promotion—*Advertising to Consumers as Alternative to Obtaining Aggressive Assistance of Retailers.* A company manufacturing a high-grade brand of toilet soap with wide distribution in retail stores had advertised its product directly to consumers only by means of newspaper advertising in several large cities when the product was first introduced. Since its sales were not increasing satisfactorily, the company appropriated an amount equal to 8% of its estimated net sales for sales promotion efforts during the following year. The company was uncertain whether to use this appropriation for advertising directly to consumers or for securing the aggressive assistance of retailers in pushing the sales of its product.

(1921)

The Mohawk Soap Company, making a high-grade, branded toilet soap which retailed at 25 cents a cake, had advertised its product directly to consumers only by means of newspaper advertising in several large cities during the period when the product was first being introduced in 1914. Mohawk soap contained no unrefined caustics such as caused irritation of the skin. It was especially compounded with milk solids to impart bleaching and purifying qualities which, it was asserted, were instrumental in the development and preservation of a healthy skin and complexion. It therefore made a strong appeal to women.

Mohawk Soap was sold by traveling salesmen to drug wholesalers in the principal cities of the United States and it was on sale to consumers in several thousand retail drug stores. From 1919 to 1921, however, the rate of increase in the volume of sales, after allowance was made for changes in the general level of prices, had not been satisfactory. In these years two large toilet soap manufacturers had conducted extensive campaigns of consumer advertising in magazines of national circulation and in newspapers, using freely both single- and double-page spreads. In addition, these companies had spent large sums on billboards, street car cards, electric signs, free samples, and other means of arousing the interest of consumers. To the Mohawk Soap Company its unsatisfactory showing during this period appeared to

[1] Fictitious name.

be attributable, at least in part, to the fact that consumers had been influenced by extensive publicity to prefer the widely advertised brands of toilet soap. Consequently, in its budget for 1922 the company provided for the expenditure in sales promotion efforts of a sum equivalent to 8% of its estimated net sales.

The Mohawk Soap Company previously had placed reliance on the special merits of its product to attract patronage; it also had sought successfully to acquire a good reputation among wholesalers and retailers for fair dealing. In deciding on its more aggressive sales plans for 1922, two divergent doctrines were encountered by the company. One doctrine was that consumers could be relied upon to secure the brand of soap for which their desire had been stimulated by advertising. According to the second doctrine, the retailers, who were in personal contact with consumers, were held to be the dominant influence, inasmuch as many consumers were likely to have at most merely an inquiring attitude toward an advertised brand; the result then would be that the retailers' advice would sway many sales.

Commentary: In marketing its product, the Mohawk Soap Company should, of course, have maintained relations as friendly as possible with the wholesale and retail merchants in whose stores the goods were offered for sale.

One of the plans proposed in this case, however, went further than the maintenance of normal friendly relationships in that it contemplated the aggressive assistance of retailers in promoting sales of Mohawk soap. That plan of sales promotion was proposed as an alternative to a plan of advertising Mohawk soap to consumers.

The proposal for relying on the retailers' "push" to stimulate sales, although very often encountered among manufacturers, manifested a narrow viewpoint. In each retail store in which articles such as Mohawk soap were sold, a wide variety of merchandise, made by many different manufacturers, was carried. For each sort of article, in many instances, several different brands were carried. If the Mohawk Soap Company fairly could expect each retailer to "push" its product, numerous other manufacturers of advertised and nonadvertised products could justly expect to have similar effort bestowed upon their products. Such a program was obviously impractical of execution by a retailer. Not only was there the physical impossibility of a retailer's "pushing" a large number of items, but in so far as several brands were in direct competition, the "pushing" of one would nullify the "pushing" of another by the same retailer.

When a manufacturer of a product such as Mohawk soap seeks to have retailers "push" his product, he really is seeking preferential treatment by the retailers, which is inconsistent with sound management in a retail store of this type. Such preferential treatment, if accorded to one brand when another brand is asked for by a customer, aims at effecting substitution, a practice that does not meet with general approbation either from manufacturers or from consumers. A manufacturer cannot logically decry substitution of other brands for his own by retailers and at the same time seek preferential treatment for his brand.

There is one situation, to be sure, in which a retailer may promote the sale of a particular brand without practicing substitution, that is, when a customer asks for soap, let us say, without mentioning brand or when a customer asks the retailer's advice as to which brand to purchase. With the increasing emphasis on brands, however, and the more and more widespread acquaintance of consumers with the various brands of soap on the market, the opportunity for the retailers to promote the sale of a particular brand without effecting substitution is not great and is constantly becoming narrower.

Turning now to the other proposal, whereby the company would have directed its efforts primarily at influencing the demand from consumers, the first question is whether the product was advertisable. From the evidence stated regarding the qualities of the product, the conclusion to be drawn is that the product did possess merits sufficiently distinctive to warrant advertising it to consumers. By utilizing its resources to arouse preference for the Mohawk brand among consumers, the company would place itself in a stronger strategic position than by seeking preferential treatment from retailers. In fact, if the company's policies toward wholesalers and retailers were fair and well executed, it is probable that it would receive as great support from those merchants as a result of advertising to consumers as by merely endeavoring to obtain preferential treatment of the product by the merchants. When an article of merit is well advertised to consumers, sales resistance in wholesale and retail stores is lessened and the merchant's task lightened.

Under the circumstances, therefore, it is my conclusion that the Mohawk Soap Company should have advertised its product to consumers.

December, 1926 M. T. C.

Merritan Company[1]

MANUFACTURER—CLEANING COMPOUND

Sales Promotion—*Discontinuance of Missionary Salesmen Offset by Increase in Advertising.* In 1910 the company, which during the 10 preceding years had employed 20 missionary salesmen to solicit orders from grocery retailers for grocery wholesalers' accounts for the cleaning compound which it manufactured, decided to discontinue the use of missionary salesmen and instead to increase its appropriation for advertising in trade papers and general magazines. In 1927 the executives reported that this policy had been fully satisfactory; that the company had 100% distribution among wholesale grocers in the United States and at least 80% distribution among grocery retailers.

Sales Unit—*Reduction in Minimum Order Required by Manufacturer.* Because the wholesale grocers to whom it sold the cleaning compound that it manufactured appeared in some instances to be buying in too large quantities, the company decided to reduce the minimum order that it would accept from six gross of the item to five gross. Later the company reduced the minimum to four gross and then to two gross.

(1927)

The Merritan Company had manufactured for over 30 years a cleaning compound called "Helper," which it sold to wholesale grocers and to chain store grocery companies. As a result of persistent advertising on street car posters and in magazines circulating among consumers, Helper was known in all parts of the United States and seemed to be looked upon by many housewives as a household necessity. From 1900 to 1910 the company had maintained a staff of 27 salesmen, 20 of whom, as missionary salesmen, solicited orders from retailers for wholesalers' accounts, and 7 of whom sold to wholesalers. In 1910 the company had decided to discontinue using the 20 missionary salesmen and to increase its annual advertising appropriation by an amount equal to the previous annual cost of maintaining those salesmen. The company retained eight salesmen to solicit wholesalers' orders. From 1910 to 1927 sales had increased at a highly satisfactory rate. Advertising appropriations also had increased, but not in appreciably greater proportion than the increase in sales.

In 1927, the company stated that it had 100% distribution

[1] Fictitious name.

among the wholesale grocers in the United States and at least 80% distribution among grocery retailers. Consumer demand apparently was so strong that grocery wholesalers and retailers could not afford to be without the article. In retail stores the average rate of stock-turn for the company's product was approximately 12 times a year, and in chain stores the average rate was about 72 times. The company maintained warehouse stocks in 42 cities. The warehouse organizations developed and maintained their own lists of customers to whom credit could be granted. Those organizations also billed the customers whose orders were filled from the warehouse stocks; all payments were made directly to the company's office in New York City.

The company's terms to wholesale grocers and chain store companies were 12½% off list price less 2% for cash. This was a one-price policy; no quantity or special discounts were allowed and no free deals were offered. The company rarely had made drop shipments, and in 1927 the practice of making drop shipments was discontinued entirely. The list price at which the company expected wholesalers to sell allowed retailers a gross margin of approximately 30% if they sold at the company's suggested resale price. The company stated that price cutting by chain store grocery companies was not excessive and that few wholesalers complained that their gross margin on the product was inadequate.

During the four years prior to 1926 the company had observed an irregularity in the frequency with which wholesalers ordered Helper. The company's salesmen, who had been instructed to discover the cause of this irregularity, reported that in almost every instance in which it occurred the wholesaler had bought in too large a quantity. As an experiment, the company reduced the minimum order that it would accept from six gross of the packages to five gross; some time after this reduction, the company reduced the minimum to four gross, and in 1926 it made a further reduction to two gross. With this minimum, the company stated that it had succeeded in securing 100% distribution at all times among grocery wholesalers.

Each of the company's salesmen endeavored to cover about one-eighth of the United States each year. Almost all the salesmen had been with the company for several years. Their salaries,

exclusive of traveling expenses, ranged from $200 to $300 a month.

The company advertised in wholesale and retail trade papers as well as in general magazines. Any innovation in use for the cleanser or any change in size of package, for instance, was always well advertised to consumers, retailers, and wholesalers; in its advertisements to wholesalers the company stated that the retailers had been acquainted with the new departure. In its advertising to wholesalers the company also stressed the fact that, inasmuch as it had created a demand for Helper among consumers and retailers by means of its advertising, all the wholesalers' salesmen had to do was to take orders.

The company deemed it the wholesalers' and not the manufacturer's function to secure orders for their own accounts. The company endeavored to allow wholesalers and retailers adequate gross margins and was confident that no ill will had been created by its emphasis on the wholesalers' responsibility for obtaining orders from retailers.

COMMENTARY: In seeking a solution of the problems attendant upon the employment of missionary salesmen, the Merritan Company, which was marketing a nonperishable product, moved in one direction; the Homer Food Company,[2] which was marketing a semiperishable product, moved in another; and both companies apparently met with success. The major point in common in the policies adopted by the two companies was the discontinuance of the employment of missionary salesmen.

The Merritan Company undoubtedly benefited from its one-price policy and its refusal of free deals. Thereby it avoided continued bickering over price and lessened the temptation to wholesalers and retailers to cut prices. The margins allowed to wholesalers and retailers, moreover, were sufficiently liberal to avoid antagonizing the merchants through whose hands the goods passed. The changes in the size of the minimum shipment requirements manifested recognition on the manufacturer's part of the customers' point of view. Those policies lessened marketing friction.

The positive force which induced the flow of the company's products through the channels of trade in increasing volume was advertising to consumers. In the absence of serious marketing friction, the strength

[2] Homer Food Company, page 511.

of the demand from consumers was sufficient to maintain intensive distribution and to keep the goods moving.

As was indicated in the commentary on the case of the Mohawk Soap Company,[3] two more or less conflicting theories often arise regarding the most effective methods of promoting the distribution of an article of small unit value sold in stores which at the same time are selling many other articles. One theory is that the manufacturer should rely chiefly on the demand from consumers; the other theory is that the manufacturer should seek to induce the retailers to stimulate sales actively. The Merritan Company chose to rely almost entirely on the demand from consumers. Consequently, its sales promotion efforts included extensive advertising to consumers. At the same time, the company adopted policies to prevent friction with wholesalers and retailers. The company apparently was convinced that it could not safely rely upon wholesalers and retailers to assume the burden of maintaining and promoting sales.

The practice of numerous other manufacturers of widely distributed products suited to consumer advertising, in employing missionary salesmen to solicit for wholesalers' accounts a substantial portion of the orders placed by retailers for those products, seems to be based upon the second theory stated above or to indicate the existence of friction between the manufacturers and the wholesalers and retailers handling their products. Those missionary salesmen presumably were employed to obtain orders that otherwise would not be obtained. If the orders obtained by the missionary salesmen would be lost because of substitution by wholesalers or retailers in case those salesmen were not employed, the manufacturers' sales policies probably are at fault. If the orders would not have originated except for the efforts of the missionary salesmen, then the retailers are being induced to buy larger quantities than they need to fill the expressed demand from their customers. To sell those extra quantities, the retailers must put forth extra sales effort.

Although the experience of the Merritan Company does not in itself furnish a conclusive answer to the problem of employing missionary salesmen, it is a valuable contribution to the general understanding of that problem.

January, 1927 M. T. C.

[3] Mohawk Soap Company, page 467.

Altamaha Garter Company[1]

MANUFACTURER—GARTERS

Sales Promotion—*Use of Premium Coupons Discontinued Because of Retailers' Opposition.* When a company manufacturing high-grade garters joined with several manufacturers of other products in the use of premium coupons, retailers selling the company's product objected, in many instances refusing to accept shipments of merchandise in which coupons were packed. The retailers claimed that use of premium coupons injured their prestige and, inasmuch as the manufacturer also enclosed coupons for the retail sales persons, encouraged their sales persons to lay special sales emphasis on the company's product. Because of this opposition, the company discontinued its premium advertising.

(1914)

In August, 1914, the Manufacturers' Discount Coupon Company[1] proposed to the Altamaha Garter Company that that company join with a group of leading manufacturers in other fields in a program of premium advertising whereby coupons redeemable for premiums would be distributed with the merchandise sold. Business was relatively inactive at that time, following the outbreak of the World War, and the Altamaha Garter Company desired to increase its sales.

Retail tobacco stores and manufacturers of some other products had used premium advertising for several years. The sponsors of the proposal were convinced that the effectiveness of premium coupons in stimulating sales to consumers would be increased if the coupons were offered with a diversified group of products, so that consumers in satisfying their ordinary requirements could collect in a relatively short time enough coupons to secure worthwhile premiums. Altamaha garters had been among the premiums offered by the Manufacturers' Discount Coupon Company for several years.

So far as the executives of the Altamaha Garter Company knew, no manufacturer of clothing or furnishings had used premium advertising. Several manufacturers of other classes of merchandise, however, already had signed contracts with the Manufacturers' Discount Coupon Company, and several others

[1] Fictitious name.

were giving the project favorable consideration. The Altamaha Garter Company was convinced that there was reasonable assurance that a sufficient number of manufacturers of different products would join in the project to make it effective.

The Altamaha Garter Company manufactured a complete line of men's, women's, and children's garters. There were 15 patterns, each in 8 colors, of Altamaha garters for men and approximately 200 patterns of women's and children's garters. Men's garters constituted about 60% of the total sales, and women's and children's garters about 40%. Of the men's garters sold by the company, approximately 65% retailed at 25 cents a pair, 10% at 35 cents, and 25% at 50 cents. It was estimated that the average consumption was between 2 and 3 pairs of garters per person per year. The executives of the Altamaha Garter Company deemed style a negligible consideration in the purchase of garters, the principal consideration being price. Altamaha garters were of excellent quality and, because of the expense of manufacture, could not compete satisfactorily on a price basis with brands of lower quality.

The company employed about 20 salesmen. Those salesmen, all of whom were paid flat salaries, called on each of their customers three or four times a year. They took no orders for wholesalers' accounts. The company sold to men's wear wholesalers, wholesalers specializing in small wares, department stores, and large clothing and furnishings stores for men. Chain store companies did not constitute an important market for the company's products, nor did the company sell appreciable quantities to mail order firms. Approximately 4,000 customers bought from the Altamaha salesmen.

The Altamaha Garter Company granted no quantity discounts but quoted three prices on each item, the price quoted to a customer depending upon the size and type of that customer's business. The company's prices to wholesalers, buying syndicates, and large metropolitan department stores were approximately 20% below the list prices, that is, the prices which the company expected wholesalers to quote to retailers. The company's prices to other large department stores and to men's furnishings stores which could be counted on for substantial sales were 15% lower than the suggested resale prices for wholesalers. All other retailers were expected to buy from wholesalers and could buy

directly only at the list prices. The company had national distribution for its products. A gross was the common unit of sale and shipment.

The company had advertised extensively in national magazines and trade papers and had done some advertising in newspapers and by posters. It was estimated that the total cost to the company of the premium advertising plan proposed by the Manufacturers' Discount Coupon Company would be approximately 3% of net sales, which would be materially less than the existing appropriation for periodical advertising.

The contract proposed by the Manufacturers' Discount Coupon Company provided that the Altamaha Garter Company should purchase coupons from that company at a discount from their redemption value. The coupon company purchased premiums at factory prices from manufacturers, printed the coupons, sold them to the manufacturers, who packed them with their own products, published a premium catalogue, advertising the products with which coupons could be secured, and maintained premium stores at which coupons could be redeemed for cash or for premiums. Any premium listed in the catalogue could be secured in exchange for a specified number of coupons with redemption value equivalent to the ordinary retail price of the premium.

According to the plan of the Manufacturers' Discount Coupon Company, the redemption value of the coupons given with a purchase was to equal 10% of the amount of the purchase at retail prices; thus, a 50-cent pair of garters would carry coupons with redemption value of 5 cents, while a $50 suit of clothes would be accompanied by coupons worth $5. The discount which the Manufacturers' Discount Coupon Company proposed to give the Altamaha Garter Company on purchases of coupons was 50% of their redemption value. Thus the Altamaha Garter Company could give a coupon worth 10 cents in redemption at a cost of 5 cents to itself. The difference between the factory selling prices of the premiums and the selling prices of the coupons accrued to the Manufacturers' Discount Coupon Company. An additional margin was assured the Manufacturers' Discount Coupon Company from the wastage of coupons which were not redeemed.

In September, the Altamaha Garter Company decided to accept the proposal for the use of premium coupons with its men's garters. The plan was to become effective in January, 1915, and if

successful was to be extended to include all styles of women's and children's garters. The company did not anticipate loss of prestige from use of the coupons, since other manufacturers of high-grade products also would be using them. The company purchased coupons and packed them in each package of men's garters; one 2½-cent coupon was packed with each 25-cent pair, one 3½-cent coupon with each 35-cent pair, and one 5-cent coupon with each 50-cent pair. In addition, 40 coupons with a redemption value of 2½ cents each were placed in each carton of 1 dozen packages of garters for the retailer or his sales persons. The company purchased or contracted for its total estimated requirements of coupons for 1915. The coupons were coded so that a check could be made on the number offered for redemption, even though a consumer redeemed coupons at one time which had been issued with products of a number of different manufacturers. The agreement with the Manufacturers' Discount Coupon Company provided for an audit of the results at the end of the first year and for a revision in discount rates if shown to be equitable to both parties.

The Altamaha Garter Company made no change in its appropriation for magazine and trade paper advertising. It expected, however, if the premium plan was successful, gradually to decrease that appropriation.

Salesmen left the factory of the Altamaha Garter Company in the middle of January with samples for the spring season. The company devoted a small space in each of its advertisements in trade papers and general magazines in December and January to announcements of the premium plan. The salesmen were enthusiastic about the plan and were convinced that it would meet with the approval of the retailers. The executives of the company anticipated some objections from conservative retailers but expected that such objections would be withdrawn when the retailers became familiar with the details of the plan.

Protests to the plan, however, were made by several large metropolitan department stores immediately following the announcement in trade papers. Several stores discontinued purchasing the Altamaha brand entirely. Scattering letters also were received soon after the announcement, voicing objection to the plan on the grounds that premiums never had been given on men's furnishings; that premiums were undignified and cheapened

both the product and the retailers in the opinion of consumers; that the retailers did not desire to have their employees influenced to push Altamaha garters more than other articles for which premiums were not offered; and that the granting of premiums to sales people in the retail stores constituted a special inducement which tended to disrupt the retailers' control of their sales forces.

The company's salesmen reported a distinctly unfavorable opinion among retailers and gradually lost confidence in the plan. Wholesalers also reported complaints which they had received from retailers. As opinion crystallized among retailers and adverse comments appeared in trade papers, more forcible opposition developed. A number of retailers canceled their orders and refused to accept shipments; others returned cases in which coupons were included. Some retailers specifically ordered Altamaha garters "without coupons." Enough of these orders were received so that the management of the Altamaha Garter Company authorized shipment of orders without coupons if so requested by customers. In many instances, both wholesalers and retailers refused to keep shipments containing coupons; they refused to remove the coupons themselves but were willing to accept reshipment of orders if the company had removed the coupons. Through their trade associations, furthermore, many of the retailers became actively interested in anti-premium legislation.

The adverse comment was sufficiently widespread to appear representative of the opinion of the trade, particularly as no opinions endorsing the plan were received. Approximately one-fourth of the company's customers were actively opposed, and the balance were either mildly opposed or uninterested. Throughout 1915, the plan was officially in force, although by the early fall many customers of the company were receiving shipments with coupons omitted at their request. No signs were evident of a change in the customers' attitude towards premiums; in fact, adverse opinion seemingly was solidifying.

During the fall of 1915, when plans for 1916 were under consideration, it seemed obvious that the premium plan had failed. Although sales did not appear to have been seriously affected, the rate of growth was such at this period as to offset the bulk of the loss of business attributable to the plan; the quantity of goods returned by wholesalers and retailers had increased sharply,

and it was evident that the goodwill of the dealers was seriously weakened.

The executives deemed immediate discontinuance of the plan advisable. It seemed apparent that the failure of the plan was caused by conditions beyond the control of the Altamaha Garter Company and that the Manufacturers' Discount Coupon Company had failed accurately to evaluate the merchandising practices of garment, clothing, and furnishings retailers. The Manufacturers' Discount Coupon Company released the Altamaha Garter Company from its contract and redeemed all unissued coupons, extending full cooperation to the manufacturer in its change of plans. After the Altamaha Garter Company discontinued the premium plan, satisfactory relationships with retailers were gradually reestablished.

COMMENTARY: The object of this premium plan was twofold: (1) to influence consumers directly to purchase goods accompanied by the premium coupons; (2) to influence consumers indirectly by inducing sales people in retail stores to give preferential treatment to merchandise bearing the coupons. The chief weakness in the plan, so far as can be judged from the company's experience, lay in the provision for granting premiums to sales persons employed in retail stores. If effective, that plan meant that the sales people would substitute Altamaha garters, for example, for other brands called for. Thus a conflict of interest would arise between the sales people and their customers. Such a conflict was not desirable from the standpoint of the proprietors and managers of the retail stores. The proprietors and managers were on firm ground in opposing that feature of the premium plan.

Inasmuch as no enthusiasm was manifested in favor of the plan by any retailers, there is no indication that it was a strong inducement to consumers to purchase coupon-bearing goods. That indifference may have resulted from the nature of the product and the habits of consumers in buying garters, or it may have reflected the characteristics of the demand and buying motives of a particular class of consumers. At all events, the experience of the Altamaha Garter Company is one instance in which one method of premium advertising was not successful.

May, 1926 M. T. C.

Sarasota Company[1]

MANUFACTURER—HOUSEHOLD PRODUCTS

Sales Promotion—*Premium Advertising Supplemented by Distribution of Coupons Redeemable in Products of Manufacturer.* The company, which manufactured a group of household products with low unit value and with wide distribution in retail grocery stores, had adopted premium advertising as its chief form of sales promotion. This advertising plan, under which consumers, by saving a specified number of the coupons which were printed on the packages of the company's products, could obtain any of a variety of articles offered as premiums, was deemed effective in holding patronage once secured, but not effective in securing new customers. As a means of inducing potential users to try its products, the company decided to distribute redeemable coupons from house to house; the holder of one of these coupons could, by presenting it to a retail grocer and purchasing a specified product of the company, obtain free another specified product of the company.

Canvassing—*Use of Redeemable Coupons as Alternative to Distribution of Samples.* As a supplement to its premium advertising, the company, which manufactured household products with wide distribution in retail grocery stores, decided that the distribution from house to house of coupons redeemable in products of the company was more effective than the distribution of free samples. The company's coupon plan provided that the holder of a coupon could, by purchasing from a retailer a specified product of the company, obtain free another specified product. The executives were convinced that less waste was involved in this plan than in the use of free samples, and that the plan did not antagonize the retailers as did free sampling.

Canvassing—*Measures Adopted to Avoid Antagonizing Retail Distributors in Manufacturer's House-to-House Canvassing.* The executives of the company, which manufactured a group of household products with wide distribution in retail grocery stores, were convinced that some form of house-to-house canvassing by the manufacturer was essential. It was important that the company's canvassing should not antagonize the retail distributors. According to the plan adopted, the company distributed from house to house coupons which entitled the holders to obtain free from the retailers specified products of the company conditional upon the purchase of certain other of the company's products. The company redeemed the coupons accepted by the retailers at the customary retail prices of the items given free to consumers, thus assuring the retailers their full gross margins. This plan avoided the objections which retailers had to the distribution of free samples by the manufacturer.

(1926)

[1] Fictitious name.

The Sarasota Company manufactured and distributed nationally to wholesale and retail grocers a group of six household products for which a steady repeat demand might be expected from consumers. The Sarasota products customarily sold at retail for approximately 10 cents each. They encountered severe competition, not only from similar, nationally advertised articles of several other manufacturers, but also from similar products of a large number of manufacturers whose distribution was limited to comparatively small areas. The intensity of competition and the fact that the Sarasota products were of the type of merchandise which consumers expected to find in practically every retail grocery store made it necessary, in the opinion of Sarasota executives, that those sales promotion methods should be adopted which gave the greatest assurance of appealing directly to consumers while at the same time not antagonizing retailers.

The company at some time had used practically every form of sales promotion which was common in the distribution of grocery products. It had, for example, advertised in magazines and newspapers, used poster and street car card advertising, given premiums to consumers, distributed free samples from house to house, and given out coupons which were redeemable for products of the company.

By 1926 the company had adopted premium advertising as its principal method of sales promotion in preference to the use of newspapers and other publications. On each package of a Sarasota product was a premium coupon which, in combination with a specified additional number of Sarasota premium coupons, could be used by a consumer to obtain a desired article listed in the company's premium catalogue. It seemed necessary, however, to use supplementary methods of sales promotion in order to acquaint potential users with the products. The management was convinced that premium advertising was particularly effective in maintaining the goodwill of customers and insuring their continued use of Sarasota products once they had become acquainted with them, but that the use of premiums alone was not effective in securing new customers.

The quality of Sarasota products was believed by the management to be equal to that of any competing brands and superior to many; it was the company's policy to maintain the factory standards of its products at the highest level consistent with the

customary retail price range for similar products. The quality of the products was stressed in the company's advertising. In general, the prices of Sarasota products were slightly higher than those of competing products; in spite of this the management was convinced that, because of their quality, Sarasota products could meet competition successfully once consumers had been induced to try them.

After extensive use of various methods of sales promotion, the company decided to supplement its premium advertising by the distribution from house to house of coupons for which consumers could obtain free from retail grocery stores certain products of the company upon purchasing certain other Sarasota products at the usual retail prices. The company assured retailers of their normal gross margins on the merchandise which they gave free to consumers by redeeming the coupons accepted by the retailers at the full retail prices of the merchandise given free to consumers.

After the company had adopted the use of premiums as its basic advertising policy, newspaper and magazine advertising was deemed unnecessary. The company regarded the distribution of premiums to consumers as a return to the consumers of a part of its advertising appropriation in recognition of their continued use of its products. It looked upon premium advertising as a substitute for general publication advertising and was convinced that premium advertising was the more effective in holding patronage once secured. The executives admitted that advertising in magazines and newspapers might get new customers for Sarasota products, but were of the opinion that the cost of such advertising in addition to the use of premiums would be greatly in excess of the benefits obtained. General publication advertising presumably would get wide recognition for Sarasota products, but there seemed to be no reason to expect that it would assure the immediate trial of Sarasota products by consumers who theretofore had not used them. Accordingly, the company decided in general not to use newspaper and magazine advertising in promoting the sales of Sarasota products.

The company had used street car cards extensively and billboards to a limited extent. Street car cards were deemed valuable adjuncts to a campaign introducing Sarasota products in an undeveloped territory, but were believed, like newspaper and magazine advertising, to be comparatively ineffective in securing

the actual trial of Sarasota products by new consumers in partially developed territories.

The executives were convinced that some form of house-to-house canvassing was essential to secure new customers. The company had used free samples extensively at various times. For free samples it was possible to use packages of the usual size, or special, small packages. Use of special-sized packages reduced the cost of sampling but might give consumers a misleading impression of the quantity which would be had in an ordinary purchase of the item. Both types of free samples had been used by the company.

The two major groups of expense involved in the use of free samples or redeemable coupons which were distributed from house to house were the salaries and expenses of the canvassers who distributed them and the cost of the merchandise given as samples or in exchange for coupons. In free sampling the cost obviously was lower when packages of sample size were used than when packages of the standard size were used, but in any event the use of free samples involved a relatively large outlay for the merchandise distributed. The general sales manager stated that the continued use of a product by as many as 25% of the consumers receiving samples was unusual and that, therefore, the cost of 75% of the merchandise used in sampling was wasted. In canvassing with redeemable coupons, the company's expense for merchandise was limited to that for the quantity given out in redemption of coupons. The cost of the merchandise used in redeeming canvassers' coupons averaged approximately one-third more than the expense of distributing the coupons. The canvassing expense ordinarily was approximately the same whether coupons or samples were given out. It might be slightly less for coupons, because of the lighter physical burden of paper coupons as contrasted with actual samples of the products and the elimination of additional trips from headquarters to the canvassing territory to replenish canvassers' stocks. On the other hand, some expense was incurred by the company's salesmen in collecting the coupons which the grocers accepted from consumers.

The general sales manager was of the opinion that the use of redeemable coupons was preferable to the use of free samples. He held that the distribution of free samples tended to lower the prestige which the company had built up for its products by

stressing their high quality in its sales promotion activities. Many women, he believed, were economical and would use willingly a coupon which permitted them to secure free, for trial, a standard-sized package of one of the company's products upon the purchase of another with which they probably were familiar. A housewife who had presented a coupon for redemption and had paid to her grocer the required price for the one product would be more interested, the general sales manager was convinced, in observing the quality of the product which she obtained free and in comparing it with competing products than she would if a free sample had been left at her door without any effort or expense on her part, or if she had secured a free sample upon presentation of the coupon to her grocer. The coupon offer, moreover, served to interest her in two of the company's products, whereas the cost of distributing free samples of two products at the same time would be prohibitive. The distribution of coupons, furthermore, provided a direct tie-in with the company's premium plan, since the canvassers distributing coupons were expected, whenever possible, to explain the premium plan to housewives to whom they gave coupons.

Although the general sales manager was convinced that the use of canvassers' coupons was more effective than free sampling as a means of sales promotion, several of his district sales managers favored the use of free samples. One district sales manager had been desirous of promoting the sales of a new product in a city of approximately 200,000 population by means of free samples. In order to secure some gauge of the relative effectiveness of the two plans, the general sales manager had authorized the district sales manager to distribute free samples in approximately one-half of the city and canvassers' coupons in the other half. No records were kept of the number of samples distributed as compared with the number of coupons given out, but the general sales manager stated that, although the populations of the two sections of the city were approximately equal, the number and size of orders which were received subsequent to the campaign from the section in which canvassers' coupons had been used were distinctly more favorable than those from the region where free samples had been distributed. This experiment convinced the district sales manager who had favored the distribution of free

samples that in general redeemable coupons were more effective than free samples.

From the standpoint of maintaining the goodwill and cooperation of retailers, furthermore, the use of canvassers' coupons seemed to the management to be distinctly superior to the distribution of free samples. Distribution of free samples was objected to by many retailers on the grounds that it reduced their potential sales by supplying their customers free with what otherwise those customers might purchase. The possibility of future increases in sales was overshadowed, in the retailers' minds, by the realization that for the present their market for the products sampled was thoroughly covered by the manufacturing company. When the company's salesmen attempted to convince retailers that the distribution of samples should result in increased retail sales of the products in the near future and that the retailers therefore should prepare to meet an increased demand, the retailers generally replied that they would purchase stocks of the merchandise when they had tangible evidence of demand from their customers. It was apparent that no material increase in consumers' demand for products of which samples were distributed would develop until the samples had been used, whereas an immediate increase in demand could be expected to follow the distribution of coupons, since the coupons led consumers to purchase certain Sarasota products from retailers in order to obtain other Sarasota products free. Retailers, moreover, received their normal gross margins on the merchandise distributed free as well as on that sold. The use of canvassers' coupons normally showed immediate effects in increased purchases of Sarasota products by retailers.

By 1926 the use of redeemable coupons was firmly established as a sales promotion policy of the Sarasota Company. Canvassers worked under the immediate supervision of the salesman in whose territory the canvassing was done. By company rules not more than four canvassers were permitted in the crew of any salesman. In general, district sales managers were not allowed to have more than 1 salesman for each 300,000 of population; in densely populated metropolitan districts not more than 1 salesman to each 400,000 of the population was permitted. These limitations upon the number of canvassers and salesmen were deemed by the gen-

eral sales manager to provide satisfactory checks against excessive use of canvassers' coupons by district sales managers.

The coupons which the company used ordinarily involved at least two of its products. The holder of a coupon, by presenting it to any retail grocer and purchasing a specified Sarasota product, could obtain free another specified Sarasota product. Since 1922 the general policy had been to require the purchase of whichever product the company was particularly desirous of introducing and to give free one of the Sarasota products which already was fairly well known to consumers in the neighborhood in which the canvassing was done; this policy, however, was not rigid, and combination offers were arranged involving the use of practically any of the company's products. Ordinarily, a product given free on one canvass was specified as the product to be purchased on the next canvass of the same territory, since by that time the product should have become familiar to consumers. A coupon offer sometimes provided for the purchase of one package of a specified product and free distribution of one package of either of two other products, at the consumer's option. Similarly, the terms of the coupon offer might permit the purchase at the customer's option of one package of either of two specified products to secure free a package of a certain other product. When large-sized packages of a product were to be introduced, it was the usual practice to offer free with the purchase of one large package of that product two standard-sized packages of some other product. In general, the retail value of the purchase was expected to be at least equal to that of the merchandise which was received free by the consumer. In 1926 the company made use of 20 different coupon offers.

The establishment of new coupon offers was under the jurisdiction of the advertising manager, subject to the approval of the general sales manager. The sales organization of the company included a general sales manager, an assistant general sales manager, an advertising manager, and 15 district sales managers. The general sales manager assumed general responsibility for the execution of all sales and advertising policies. The advertising manager was directly responsible for the execution of advertising policies of the company and reported to the general sales manager. Territorial administration of both sales and

advertising policies was delegated by the general sales manager to the district sales managers.

The general sales manager maintained firm control over general policies but preferred to allow his district sales managers to have charge of all details of the actual administration of those policies. Accordingly, the use of canvassing was left largely to the judgment of the district sales managers, subject to the limitations upon the number of salesmen and canvassers in a territory and to a provision that the district sales managers must select coupons from the assortment prepared by the advertising manager. In general, furthermore, it was expected that a district sales manager would not use a single coupon offer more than once in each year nor have any part of a territory canvassed oftener than twice a year. Special premiums were offered in each territory semi-annually and were widely displayed in the windows of retail grocery stores. In some instances, district sales managers had used the same coupon offer as many as four times during a single year. This was considered excessive by the general sales manager, since it caused an abnormally heavy cost for the particular product given free to consumers presenting the coupons for redemption.

In 1925 the general sales manager had occasion to remind several of his district sales managers that they had used canvassing too extensively. To prevent recurrence of this condition, the advertising manager appointed one of his clerks to maintain a record showing for all cities with populations of 100,000 or more the code numbers and the quantity of coupons used by each district sales office in each quarter of the year. It was the duty of this clerk to report to the advertising manager any instance of overuse of a particular coupon. This check was considered preferable to a more arbitrary ruling by the general sales manager, since it permitted the consideration of each situation on its own merits and avoided breaking down the system of local administration of sales promotion policies.

Whenever, in the judgment of a district sales manager, the sales of a particular product of the company would benefit from the use of redeemable coupons in a specific section of one of his salesmen's territories, he used a canvassing crew, under the supervision of the salesman, to distribute the coupons to consumers. Each coupon was coded to show the month and year of issue, the sales territory in which issued, the number of the canvasser

distributing it, and the usual retail price of the item offered free. On the coupons were printed an explanation of the procedure for consumers to follow in redeeming them and instructions directing retail grocers who accepted the coupons to hold them for redemption by the Sarasota Company's salesman on his next visit.

In order not to antagonize retailers by its house-to-house canvassing, the company redeemed all coupons which the retailers accepted from consumers at the retail prices indicated on the coupons. Those prices were the ones at which retailers ordinarily sold the merchandise, although some retailers asked slightly higher prices and some slightly lower prices.

Salesmen were expected to inform both the retail and the wholesale grocers in their territories when canvassing was to be inaugurated and to make sure that those distributors had adequate stocks on hand to supply the demand for Sarasota products when coupons were presented by consumers. The Sarasota salesmen pointed out to the retailers and wholesalers that the distribution of the coupons from house to house should increase their sales of the company's products. No price or other concessions were offered to induce distributors to purchase adequate stocks at such times.

The company received its ordinary factory prices for the merchandise distributed through the use of canvassers' coupons but paid to the retailers the full customary retail prices of the merchandise which the retailers distributed free according to the terms of the coupon offers. Thus, for the product which a consumer redeeming a coupon bought from him, the retailer received his usual price, allowing him his customary gross margin, at the time he accepted the coupon; for the product which he gave free in exchange for the coupon, he received when the company's salesman next called the amount indicated by the coupon, which, if he was selling the product at the usual retail price, also allowed him his customary gross margin.

City canvassing crews generally were composed entirely of women, many of whom had been employed by the company for several years. Some of the district sales managers, however, preferred to use casual crews recruited for a single job. One of the most successful districts, from the standpoint of low selling costs, was operated on this basis. Frequently, in outlying districts where it was impossible for canvassers to return to their

homes each night, junior salesmen distributed the coupons. A crew was composed of a captain, an assistant, and two other canvassers. Except in the outlying territories, the canvassers were permanent residents of the districts to which they were assigned and spent their entire working time there. Canvassing generally was conducted intensively in a comparatively small section of a territory at any given time. This permitted canvassing crews to rotate from one section to another and thus provided them steady occupation.

The canvassers started at the top floor of an apartment or tenement house and called at each door on the way down to the street floor, explaining the coupon offer and the merits of the products to the housewives with whom interviews could be obtained. When a doorbell was not answered, the canvasser slipped a coupon under the door. On a basis of special tests, the general sales manager estimated that approximately 40% of the coupons issued to consumers with whom interviews were secured were redeemed and that only 20% of the coupons left under doors were redeemed. No summary reports were compiled in the general sales office either of the number of coupons distributed or of the number redeemed. Canvassers' expense statements were sent by the salesmen to the district headquarters and after approval by the district sales managers were forwarded to the main office; thus data were available if needed for special analysis. Each canvasser or other sales promotion employee filled out a daily report on a sheet shown here as Exhibit 1. These reports were sent to the salesman in charge of the territory and by him, the following day, to district headquarters.

In each interview a canvasser was expected to introduce herself as a representative of the Sarasota Company calling to explain the uses of its products and to give the housewife a coupon which, if presented to her grocer, would entitle her to a free package of one of the company's products upon the purchase of another of the products. Canvassers were instructed in general to limit their talks to a discussion of the uses and merits of the products included in the coupon offer, since a general discussion of all the company's products might be confusing. Canvassers also were expected to explain the premium plan of the company, especially with regard to any special premium offer which was in effect at the time. If the consumer had not used Sarasota prod-

ADVERTISER'S DAILY REPORT

DATE........................ NAME......................................
If canvasser, write number after name
DISTRICT WORKED............ TIME STARTED.......... STOPPED............

Nature of Work		Report approved by (initial)................Salesman		
Check Here	Window Trimming	Number of displays made.............. Window.......... Interior............ List location of stores on reverse side	Remarks:	
	Sign Tacking	Kind of signs put up and quantity of each		
	Special Work	Remarks:		
	Canvassing	Material distributed—Item Product coupons Premium catalogues Premium folders Special premium circulars	Quantity of each	Remarks:

Exhibit 1. Daily report sheet for canvassers and other sales promotion employees of Sarasota Company

ucts, the canvasser was expected, in addition to the product coupon, to give her a special introductory premium coupon which could be used with the premium coupons issued with Sarasota products to obtain various articles offered by the company as premiums. The company employed several instructors whose duty it was to travel periodically from one territory to another to instruct canvassers in the most effective methods of presenting both the product coupons and the premium coupons.

As an experimental method of sales promotion, the company sometimes employed educated women, such as teachers and nurses, to call on housewives for the purpose of interesting them in some particular premium offered by the company's premium department. These canvassers attempted to persuade the housewives to save the premium coupons which appeared on the packages of Sarasota products. If a housewife promised to save coupons for the premium, the canvasser gave her a form which, if used within six months, would permit her to obtain the premium for 10% less than the number of coupons ordinarily required for that premium. In some instances these special canvassers also gave out product coupons, but it generally was found that the premium discount form was sufficient to arouse the consumer's interest in Sarasota products. Special canvassers working on this

basis were paid fixed salaries, but their promotions depended on the number of their discount forms which were redeemed.

Whenever a canvass was to be undertaken in a section of a salesman's territory, the salesman, with the approval of the district sales manager, requisitioned his anticipated requirements of coupons from the general sales office. Coupons on hand in the district sales offices were kept in locked files while awaiting distribution. Coupons were given out each morning to the canvassing crews in sufficient quantities to supply the needs of that day only. Canvassers were expected to give one coupon to each person interviewed or to leave one coupon at each house or apartment. The general sales manager estimated that one canvasser could effectively distribute approximately 250 coupons a day in highly concentrated centers of population, but that 200 coupons or fewer would be a general average. In small country towns or residential suburbs where it was necessary for the canvasser to return to the sidewalk after each call, 100 coupons a day was considered a fair average and 125 coupons a maximum.

The company had discovered some instances of attempts at fraudulent redemption of coupons by retailers. The executives were of the opinion, however, that the company was adequately protected against such attempts. Canvassers' activities were closely supervised; it was a company rule that canvassers should not enter grocery stores while on duty; coupons were issued to canvassers daily in limited numbers; since each coupon bore the number of the canvasser distributing it, collusion between a canvasser and a retailer would be evidenced by the presentation to the company for redemption of a disproportionate number of that canvasser's coupons; and, in addition, the wear and tear shown by the coupons presented indicated whether they had been carried around by consumers and accepted one at a time by the retailer or had been received in a bunch.

Although canvassing crew captains were expected to maintain careful supervision over their crews, district sales managers were required to check up on the canvassing activities by sending supervisors over the same territory after an interval of several weeks. A supervisor made about 50 selected calls in a day. He inquired from the housewives whether they had been called on by Sarasota representatives and ascertained what the housewives remembered of the canvassers' exposition of Sarasota products. The super-

visors checked the work of each canvasser by this method of sampling and reported for the canvasser a score of "Excellent," "Good," "Fair," or "Poor"; canvassers also were rated on their punctuality in reporting for work, and on their appearance, courtesy, and similar characteristics. If a canvasser received three "Excellent" monthly ratings in a year, she was given, in addition to the flat salary which she received, a bonus of $50; if three "Goods," a bonus of $40; if three "Fairs," a bonus of $25; but if she had three "Poor" reports, she was given no bonus and faced dismissal unless immediate improvement was evident. Supervisors were alternated in checking the canvassers' work so as to reduce the possibility of injustice resulting from personal prejudice.

In rural sections, where distances made difficult the effective use of canvassing crews, the company used a mail circularizing plan. The salesman in whose territory the circularizing was to be done obtained from retail grocers in the territory lists of their customers who should be circularized. The grocers entered the names upon a form prepared by the company for that purpose. On the form was stated the kind of coupons to be used. The grocer's name and address was filled in at the bottom. Salesmen generally secured about 200 names from each retailer. The salesmen also obtained mailing lists of rural free delivery routes from postmasters. If the mailing was done from a list submitted by a retail grocer, his name was stamped on the coupons; if, however, a rural free delivery mailing list was used, the coupons were redeemable at any grocer's. The coupons used might be the same as those utilized in the house-to-house canvassing, or they might be special ones offering one package of each of the company's six products for approximately 50% of the ordinary retail prices of the products.

Accompanying each coupon mailed to a consumer was a special letter calling attention to the company's reputation and stating that the consumer's name had been furnished by her grocer. Redemption procedure for these coupons was similar to that for the coupons distributed by canvassers. The company in redeeming the coupons accepted by a grocer paid the grocer the difference between the ordinary retail value of the merchandise and the amount which the grocer had received from his customers when accepting the coupons.

The salaries and expenses of canvassers amounted in 1925 to approximately 3% of total net sales; the cost of redemption of coupons for that year was approximately 4% of total net sales.

The general sales manager was convinced that the use of canvassers' coupons offered an effective method of stimulating distribution and procuring goodwill. In his opinion it enabled the company to exert a direct influence on consumers without at the same time antagonizing retailers, either by temporarily reducing their sales, as in the case of distribution of free samples, or by reducing their usual gross margin on the merchandise involved.

Commentary: The products which the Sarasota Company was manufacturing were articles of common use for which repeat demand from consumers was frequent. In each district every family was a potential customer, who bought either Sarasota products or competitive products at frequent intervals. This circumstance made it practical for the company to use intensive methods of sales promotion which would not have been economical for use by a company whose potential market was less dense or for whose products repeat sales to consumers were of infrequent occurrence. Inasmuch as the products were of a type which consumers already were using, furthermore, the company's task in sales promotion was chiefly to secure for itself a larger share of the existing market, rather than to endeavor to expand the aggregate market for such products.

The market was highly competitive, and in addition to the merits of the products themselves other means of protection were essential to guard against inroads by competitors on the company's established patronage. For holding the patronage of users of its products, this company had found material bonuses in the form of premiums to be more effective than an appeal to other buying motives through magazine and newspaper space.

In addition to holding the patronage already won, the company had the task of winning over an increasing number of consumers to the use of its products. This was a normal competitive situation for a familiar type of product of universal use for which the market was practically inexpansible.

Inasmuch as this type of product already was in general use among consumers, it was necessary for the company to induce consumers using other brands to change an existing practice or to give up their allegiance to the other brands if they were to use the Sarasota products. Since consumers usually were not dissatisfied with the brands which they were using, an appreciation of the merits of the Sarasota brand

could be expected only by trial. A trial of the Sarasota products could be most certainly assured either by placing samples in the hands of the consumers or by offering them sufficient inducement to make a trial. The chief issue in this case, therefore, was whether to distribute free samples or to distribute redeemable coupons which induced the consumers to make purchases of certain of the company's products in order to secure others free for trial.

The evidence seems conclusive that the use of redeemable coupons under the circumstances cited in this case was more advantageous than the distribution of free samples. The use of redeemable coupons involved less wastage than the distribution of free samples, for there was greater assurance that the product would be tried when paid for or when secured by the purchase of another of the company's products than when redeemed gratis. This is merely another example of the truth of the oft-repeated statement that people usually have greater appreciation of what they pay for than of what they receive free. The act of redeeming the coupon involved an initial break in the buying habits of consumers who previously had not bought the company's products. By inducing the consumers to make that initial break, the company gained a strategic sales advantage which would not have been attained merely by having consumers use free samples.

One of the elements of cost in the use of redeemable coupons was the payment by the company to retail grocers of the full retail price of the merchandise delivered free to consumers presenting the coupons. If free samples had been distributed, the company would have had to reckon on the cost of the samples as an item in sales promotion expense. Under the plan of issuing redeemable coupons, the company incurred the cost of producing the merchandise given to consumers presenting coupons for redemption and in addition the amount of the retail grocer's gross margin on that merchandise. The quantity of merchandise distributed free to coupon holders per 10,000 consumers was less, to be sure, than the quantity that would have been required for distributing free standard-sized samples to the same group of consumers, but the fact that that saving probably more than offset the expense incurred in paying the retail grocers their full margin should not be permitted to obscure the significant point of policy in reimbursing the retail grocers at the retail price instead of at the wholesale price.

By paying the grocers the full retail price the company avoided incurring their antagonism. Since the aggregate market for this type of product was inexpansible, the increased use of Sarasota products in any city, either as a result of free sampling or of the distribution of coupons, meant a decrease in the use of products bearing competing

brands. Hence the retailers were correct in stating that their sales would be reduced by the distribution of free samples of this type of product. The use of redeemable coupons removed that ground for opposition to the company's sales promotion plans. The methods used by the company also facilitated the sales of adequate stocks of Sarasota merchandise to the retailers in advance of the manifestation of the demand which was to be generated. Hence the danger of loss of sales because of lack of accessible stocks was minimized.

This case, in conclusion, furnishes a good example of conditions under which the use of redeemable coupons is to be preferred to the distribution of free samples. It also provides a particularly valuable record of experience in managing the distribution of redeemable coupons.

September, 1926 M. T. C.

Largo Company[1]

MANUFACTURER—SOAP

Distribution Channels—*Brokers Utilized in Preference to Own Sales Force.* A company which manufactured hand soaps and cleaning preparations, for use chiefly by mechanics, used food and grocery brokers in making a substantial proportion of its sales to grocery wholesalers and chain store grocery organizations. It was suggested that the company should expand its small sales force to replace the services of brokers in soliciting orders from wholesalers and chain store companies. The company, however, decided to continue its relations with brokers, stating that, although large manufacturers with a variety of products apparently were finding it advantageous to establish their own sales forces, smaller manufacturers with limited lines of merchandise might find it expedient to continue to use brokers.

(1926)

Since its formation in 1910, the Largo Company, which manufactured mechanics' hand soaps and cleaning preparations at its factory in the Middle West, had used food and grocery brokers extensively in selling its products to wholesale grocers and chain store companies. In 1926, however, the action of several large food and grocery manufacturers in consolidating and establishing their own sales forces for soliciting orders from wholesalers or directly from retailers raised the question whether the Largo Company should revise its general sales plan and establish its own sales force to replace brokers.

The Largo Company had decided that its products should be sold through the same type of retail stores as were used for marketing household soaps. It had expected to secure a substantial proportion of its sales volume through retail grocery stores and, accordingly, had established connections with brokers to sell to both wholesale grocers and chain store grocery companies.

The company at one time had placed its products on sale in garages, expecting in that way to reach the motorist trade; a careful check of the results for one year had indicated that the mechanics employed in the garages had used the bulk of the stocks of Largo products placed on sale there. The mechanical improvement in automobiles was deemed a factor in reducing

[1] Fictitious name.

motorists' demand for such products; this factor, combined with the tendency toward reduced storage space available for such supplies in automobiles, had led the company to discontinue its aggressive efforts to market its products among motorists. In the company's opinion, the chief market for its products lay among mechanics.

The Largo Company had advertised its products extensively, particularly in trade papers and by means of dealer helps, and a substantial demand for the products had been stimulated among customers of retail grocery stores; sales had increased gradually but steadily.

In order to be able to make prompt deliveries to customers, the company maintained warehouse stocks in New York, Boston, Pittsburgh, Chicago, St. Louis, Detroit, and San Francisco. Shipments were made in car lots from the factory to these warehouses. The company held the view that the demand for its products among consumers was relatively unsusceptible to increase by sales pressure and that the products customarily experienced a comparatively low rate of stock-turn in retail stores; the company wished to avoid the use of sales methods which would lead its customers to overbuy and preferred to fill orders with relative frequency rather than to have its customers overstocked.

Because its products tended to show a low rate of stock-turn in retail stores, the company deemed it necessary to offer a wide gross margin to retailers. The principal product, sales of which constituted 80% of the total sales of the company, was sold in two sizes of packages. The large packages commonly were sold at 15 cents each in unit retail grocery stores and at 25 cents for two in chain stores; the wholesale list price for this size was 10 cents. The small package usually was sold for 10 cents in unit stores and for 9 cents in chain stores; the wholesale list price was 7½ cents. Thus in a unit store the gross margin on Largo cleaner was 33⅓% on sales of the large packages and 25% on sales of the small packages.[2] The company had added a few other products to its line primarily to reduce the unit costs of distribution, which previously had been carried by the principal product alone.

Until 1924 the company had offered no quantity discounts to wholesalers and chain store companies. At that time, however,

[2] Bureau of Business Research, Harvard University, Bulletin No. 52, *Operating Expenses in Retail Grocery Stores in 1924*, p. 49.

in addition to the 15% trade discount and the 2% cash discount for payment within 10 days which it granted on all its products, the company offered wholesalers and chain store companies a discount of 3% from the list price less the trade discount on single purchases of 25 cases or more of its principal product; there were 36 15-cent packages in a case and 48 10-cent packages. This additional discount did not apply to purchases of other than the company's principal product.

Although officially the 3% discount was offered as a quantity discount, the sales manager stated that in effect it was merely an increase in the trade discount, since there were few customers who ordered less than 25 cases of the principal product at a time.

Wholesalers' orders on the average were in 25-case lots; those wholesalers who had established a substantial market for Largo products usually ordered about once a month, while other wholesalers ordered only about once in six months. Single orders from customers so infrequently were for car lots that the company offered no special discount for such purchases. The company prepaid the freight to the wholesaler's city on all orders totaling 5 cases or more.

In 1926 the company was using the services of 90 brokers. The company paid the brokers a commission of 5% for their ordinary services of soliciting orders from wholesale grocers and chain store companies. In some instances, however, the brokers employed missionary salesmen to call upon retailers, and on orders secured in that way the brokers' commission was 10%. On approximately 60% of the sales of its products made by brokers the company paid the 5% commission, while on the remaining 40% of the sales made by brokers the company paid the 10% commission. Brokers' commissions were computed on the basis of the list prices to wholesalers less the trade discount and, in the case of the principal product, the quantity discount. With a few exceptions, each broker solicited orders for the products of several non-competing manufacturers.

The maximum margins and commissions on a 15-cent package of the company's principal product, for example, are shown on the opposite page. The company's advertising expense commonly amounted to 8% of net sales after deduction of brokers' commissions; to this expense had to be added that for the company's own salesmen and the sales office executive and clerical expense.

		Cents
Retail price, unit retail grocery stores		15.00
Retailer's gross margin (33⅓%)		5.00
List price to wholesaler		10.00
Wholesaler's discount (15%)		1.50
Price to wholesaler before cash and quantity discounts		8.50
Quantity discount (3%)		.255
Price to wholesaler before cash discount		8.245
Cash discount (2% 10 days)		.165
Net cost to wholesaler		8.080
Brokers' discount	5% regular discount	
	5% special discount for missionary work	
	10% based on price to wholesaler of 8.245 cents	.825
Net to company		7.155

Although the company depended principally on brokers to secure an adequate volume of sales, it employed some salesmen of its own. These salesmen worked independently in developing territories not covered by the brokers and also in conjunction with the brokers in introducing new products which the brokers had not sold previously. It frequently had seemed desirable for the company to use its own salesmen for a year or more in a new territory in order to prove the sales possibilities of Largo products before establishing relations with brokers. The expense of such sales efforts, however, seldom was less than 15% of the amount of the orders secured. In 1926 the Largo Company was employing 20 salesmen and was represented exclusively by its own salesmen in 6 cities. Those salesmen were paid straight salaries. Sales made by the company's salesmen in a broker's territory were credited to the broker, and he was allowed his ordinary commission of 5% on such sales.

A broker usually called on wholesalers located in large cities once a week for the specific purpose of selling Largo products. He customarily mentioned the products, however, whenever he called on the wholesalers, which frequently was several times a week, inasmuch as he usually was obtaining orders for several manufacturers. Largo salesmen in new territories were expected to call upon wholesalers in metropolitan districts once in three weeks and upon other wholesalers about once in six weeks. Those salesmen also called upon a majority of the retailers in the new territories twice a year for the purpose of doing missionary work.

Some of the brokers regularly employed missionary salesmen to solicit orders from retailers for wholesalers' accounts. Other brokers customarily employed missionary salesmen for special sales campaigns only; such procedure usually involved the use of missionary salesmen for a period of two or three weeks; during that time the salesmen solicited orders from retail grocers for the products of the manufacturers represented by the brokers. Although such free-lance missionary salesmen frequently served a number of brokers in the course of a year, their use was asserted to be distinctly advantageous because of the close personal contact which they maintained with individual retailers. The possibility of such salesmen's inducing retailers to overstock a particular item was not considered serious, because the salesmen commonly concentrated their efforts in a limited territory and, although they might not be used again for several months to solicit orders for that product, they presumably would call on the same retailers frequently with other products and therefore could not afford to incur the retailers' ill will. The Largo Company in general permitted brokers to use their own discretion in conducting missionary work on its products. A broker was deemed to be in an advantageous position to judge the probable value of the use of missionary salesmen; his close personal contacts in the territory enabled him to know when competitive sales efforts might be forestalled by a missionary campaign.

The company allowed the additional 5% brokerage commission for either type of use of missionary salesmen by brokers upon receipt at the company's offices of copies of missionary salesmen's orders secured from retailers and accepted by wholesalers. Whenever sales were unsatisfactory in a given broker's territory, the company placed one of its own salesmen in the territory to work with the broker for several months in developing sales of the products. The broker was not allowed the additional 5% commission on retailers' orders secured by the company's salesmen.

The brokers secured orders for Largo products from wholesale grocers and in numerous instances from chain store systems and forwarded the orders to the nearest city at which the company had warehouse stocks. The brokers did not carry stocks nor did they make collections from the wholesalers or the chain store companies. Invoices were sent out from the company's main office, and collections were made from there. As soon as a broker

had turned over an order to the company, his responsibility in the transaction ceased.

In several instances the company had found it advisable to establish more intimate connections with brokers than those outlined above; under such arrangements the brokers' offices served in effect as sales branches of the company. In such instances, however, although the brokers concentrated their attention on Largo products, they maintained their own identity in their relations with wholesalers.

In 1926 approximately 50% of the company's total distribution was secured through retail grocery stores, including both unit and chain stores. Of the total sales to the grocery trade it was estimated that brokers made 50% without direct assistance from the company's salesmen and that an additional 10% was credited to brokers for sales made in their territories by the company's salesmen. Sales made directly to wholesale grocers and chain store organizations by the company's salesmen amounted to 20% of the total sales to the grocery trade. The remaining 20% of sales to the grocery trade were made on mail orders, which were received principally from wholesale grocers who were located outside of brokers' territories and who were not solicited directly.

The sales manager of the Largo Company stated that although many brokers seemingly had failed to give adequate service to their principals, his own experience with brokers had been satisfactory in general. He recognized a distinct tendency for large companies manufacturing a wide variety of products to establish their own territorial sales organizations, but he deemed this no serious hindrance to the continuation of satisfactory relationships between the smaller manufacturers and brokers, especially when the manufacturers offered a relatively narrow range of products. Furthermore, as the brokers lost some of their larger accounts, the smaller accounts would be of more importance to them and consequently would receive more careful attention.

Sales of Largo products were comparatively steady throughout the year. In 1925 the distribution of net sales by months had been as follows:

January	7.7%	July	9.4%
February	7.2	August	9.7
March	9.4	September	7.4
April	9.5	October	7.9
May	9.3	November	7.7
June	9.8	December	5.0

This regularity of sales was held by the sales manager to be a distinct inducement to brokers to give constant attention to Largo products, inasmuch as the sales of Largo products could be expected to provide them with a steady income.

The Largo Company decided to continue its relationships with brokers for the immediate future and expected the sales of its products by grocery stores to show the same steady increase which had been experienced during the past few years.

COMMENTARY: The decision of the Largo Company to continue the employment of brokers for selling its products to grocery wholesalers and chain store companies was warranted chiefly by the nature of the demand for the products. The comparatively small size of the company's business was not in itself sufficient reason for using brokers' services, for numerous other companies with sales presumably no larger than the volume of the Largo Company were successful in selling their products directly to wholesalers or even directly to retailers.

Several rather obvious advantages and disadvantages in the use of brokers' services immediately suggest themselves. In so far as the company employed brokers for marketing its products, it was relieved of the burden of setting up and administering a sales organization. Since, moreover, each broker carried several noncompeting lines, his salesmen could call upon customers more frequently than could each manufacturer selling independently, and probably at less expense per line.

On the other hand, the employment of brokers interposed another group of intermediaries between manufacturer and consumers. Even though the commissions paid to brokers were less than the expense that the company would have incurred for having the same service performed by its own salesmen, each additional step interposed in the marketing of the products increased the difficulty of carrying out a forceful marketing program. The interest of the brokers was diffused over several noncompeting lines of merchandise. The interest of each wholesaler to whom a broker sold Largo products was diffused over thousands of competing and noncompeting items, and each retailer's interests were similarly diffused. To a retailer, therefore, the company which manufactured Largo products must have seemed impersonal and far-removed. These disadvantages to the employment of brokers fully balanced the advantages previously stated. In this particular instance, however, there were special circumstances which strengthened the case for the brokers.

The chief market for the company's product was among mechanics,

and the existence of a steady repeat demand was evidenced by the regularity of the company's sales from month to month. Since the Largo products were sold chiefly to mechanics, the potential volume of sales and, consequently, the density of distribution required varied from community to community in correspondence with differences in the number of mechanics in each. Thus in some localities there was a large potential demand; in others the demand was negligible. The company's market necessarily was uneven in density of sales. The market also was inexpansible; that is, the company could not expect by vigorous sales efforts to extend its market by inducing persons other than mechanics to purchase appreciable quantities of Largo products regularly, in the localities in which the density of sales was low. The uncontrollable irregularities in sales density apparently rendered it impracticable for the company to carry out a general advertising program, such as was used by the Merritan Company,[3] which would have permitted the company to get its orders from wholesalers with a small number of salesmen. The Largo Company was in a position quite different from that of a company for whose products uniformly intensive distribution was attainable. Inasmuch as each broker was selling several lines of merchandise, the irregularity in the density of Largo sales did not constitute an embarrassing handicap to him.

December, 1926 M. T. C.

[3] See page 470.

Chippewa Company[1]

MANUFACTURER—CONDIMENTS

Distribution Channels—*Selling to Wholesalers Rather Than Direct to Retailers.* A company manufacturing high-grade condiments had restricted its sales to wholesalers and to a few manufacturers, refusing to sell directly to retailers. The company contemplated undertaking to increase its net sales by selling directly to chain store companies but decided that to do so would jeopardize sales to wholesalers.

(1926)

It was a policy of the Chippewa Company, which in 1926 had been manufacturing condiments of high quality for more than 50 years, not to sell directly to retailers. The company sold to wholesalers and to a few manufacturers. Its sales territory included New England and New York State outside of New York City. In 1924 the company had contemplated selling directly to chain store companies but had decided to adhere to its established policy. In 1926 the question of direct selling to chain store companies again was raised. The company did not intend to extend its activities to new territories, but the executives recognized the desirability of intensive distribution in the territories in which the company did sell.

The Chippewa Company manufactured approximately 50 products, all of which bore its brand. Sales of four of the products, table sauce, catsup, mustard, and salad dressing, comprised the bulk of the company's sales. Prepared mustard was a new product which the company intended to emphasize.

The company sold to 355 wholesale firms, 325 of which were located in New England and 30 of which were located in New York. The company classed as a wholesaler any firm which purchased for resale to retailers. Some of the company's wholesale customers had for their chief lines such products as bakers' supplies or ship supplies and sold groceries to retailers as a minor activity. The company refused to manufacture goods for sale under wholesalers' private brands, even when the wholesalers threatened to discontinue purchasing Chippewa products unless the company did so.

[1] Fictitious name.

The Chippewa Company maintained a one-price policy, allowing its customers a discount of 15% off list prices, its suggested resale prices to retailers. The company granted no quantity discounts. The cash discount was 2% of net prices for payment within 10 days. The company prepaid freight. The sales manager estimated that at the rate of sales in 1926, each dollar of net sales represented 64 cents for manufacturing cost, 20 cents for overhead, 11 cents for selling expense, 1 cent for outward freight, and 4 cents for net profit.

The company employed 11 missionary salesmen, who were resident in their territories, to call upon retailers for the wholesalers' accounts and to take orders from wholesalers. About 50% of the orders that the company received from wholesalers came by mail or by telephone directly from the wholesalers, and about 50% were sent in by the missionary salesmen. About 18% of the company's total gross sales were made by officials in the central office, chiefly to small manufacturers of food products. The company's salesmen called on the wholesalers in their territories at least once a month and endeavored to see a majority of the retailers once in every two months. The company did not determine what percentage of its wholesale orders were obtained from retailers by its missionary salesmen. It did not require wholesalers to place orders in addition to those secured by its missionary salesmen, although it knew that some manufacturers who employed missionary salesmen to solicit retail orders to be filled by wholesalers did require additional orders from the wholesalers.

The Chippewa Company did not give merchandise free with purchases of specified amounts, except occasionally when competitors instituted campaigns in which they offered such so-called free deals. With the exception of drop shipments to three chain store companies which purchased Chippewa products from wholesalers, the company made drop shipments to retailers only on a very small percentage of total gross sales and never except in the immediate vicinity of the wholesaler's warehouse. The Chippewa Company made drop shipments to the main offices of the three chain store companies for their entire purchases. The total orders which the company shipped directly to those chain store companies in 1925 amounted to 5% of its total sales in that year. The company's missionary salesmen did not call upon branch

managers of chain store companies but did solicit orders, to be filled by wholesalers, from the central buying offices of the three chain store companies. About 325 of the company's 355 wholesale customers took the cash discount; the 3 wholesalers who sold to chain store companies invariably did.

The three chain store companies which purchased the company's products from wholesalers were the only chain store companies which regularly carried the Chippewa brand. One chain store grocery company to which the Chippewa Company's wholesalers did not sell carried the brand occasionally in several of its branches. The Chippewa Company did not know the source of that company's purchases of Chippewa products. Each of the three chain store companies which regularly carried the Chippewa brand also carried its own brand of condiments. One chain store company which did not purchase the Chippewa brand owned a manufacturing plant and packaged condiments under its own brand. The executives of the Chippewa Company detected a growing tendency among grocery wholesalers and chain store grocery companies to substitute their private brands for manufacturers' brands on condiments as well as on other products. The executives were of the opinion that if this tendency continued it was likely to cause price to become the only selling appeal that the company could use. The company always had met competition, through its salesmen and local advertising, by emphasizing the high quality of its products and its long experience in the manufacture of condiments. The three chain store companies to which it shipped directly had not cut the prices of Chippewa products seriously; other retailers seldom cut the prices at all.

The company estimated that an average family of 5 consumed 52 cents worth of condiments a month at retail prices. A typical wholesaler ordered approximately $100 worth of Chippewa products every other week; the size of orders ranged from $25 each to $250 each. Orders of each of the three chain store companies which purchased Chippewa products from wholesalers ranged from $250 to $500 a week.

The company paid its salesmen flat salaries without commissions or bonuses. All the salesmen used automobiles which were owned either by the salesmen or by the company. On cars owned by the company only upkeep and operating expenses were charged to salesmen's expense. Depreciation and interest were

charged to overhead. When the salesmen used their own cars in the company's service, they were paid 7 cents for each mile traveled. Salesmen's salaries plus their expenses averaged about 7½% of their gross sales; a salesman's gross sales were all orders shipped to wholesalers or directly to chain store companies in his territory. In selling expense were included salesmen's salaries, salesmen's expenses, and advertising. The highest ratio of a salesman's expense and salary to his gross sales was 15.2% and the lowest ratio was 2½%.

The company's advertising expense in the first part of 1926 amounted to about 3½% of gross sales. The company ordinarily confined its advertising to newspapers in its territory and to booklets. The booklets were enclosed with packages shipped to wholesalers; the wholesalers distributed the booklets to the retailers, who in turn distributed them with customers' purchases. The company had experimented with radio advertising within its territory with varying success. When it offered a new book of bridge rules free, a reasonable number of requests for the book were received. When the company offered, at another radio trial, to send a 10-cent package of its condiments free if requested by mail, only three replies were received.

The company's salesmen advocated selling directly to chain store companies, but agreed that such a change in the company's policy might cause the company's wholesale customers to turn to competitors. The company estimated that there were in New England approximately 5,300 branches of chain grocery store companies and approximately 22,000 unit grocery stores. According to the *Richey Data Service* for 1924, there were 334 wholesale grocers in New England. The Chippewa Company had no confidence that its wholesale customers would continue to patronize it if they disapproved of its policies or could obtain an advantage by purchasing elsewhere. Many times its wholesale customers had bought products inferior to Chippewa products in order to gain slightly larger profits on sales to institutions contracting for large quantities. In one instance, a wholesaler, who had arranged to buy cooperatively for a group of retailers and who planned to sell many products under one private brand, had asked the Chippewa Company to manufacture goods bearing that private brand. This wholesaler was a regular purchaser of Chippewa products, but when the company, following its usual policy,

refused to manufacture for the private brand, its sales to the wholesaler decreased 50%.

When cash-and-carry wholesale firms had sprung up in different parts of the company's territory, the company had decided, in spite of protests from the service wholesalers, to sell to those cash-and-carry organizations at the same discount rate granted to other wholesalers. This policy had not resulted in permanent loss of sales to service wholesalers. The company had based its decision on its opinion that many so-called service wholesalers commonly did not give adequate delivery service.

In 1924 the sales manager of the Chippewa Company had negotiated with several of the chain store companies which did not buy the Chippewa brand. On the basis of those negotiations and occasional conferences since that time with officials of those companies, he estimated in 1926 that, by selling to New England chain store companies directly, the company could increase its total net sales by about 4%. If every chain store company in New England bought the Chippewa brand, particularly those with New York City branches, there might be a further increase in net sales of 5%. To obtain the 4% increase the company would have to sell to three chain store companies in addition to the three to which it regularly had made direct shipments for wholesalers' accounts. At least one of the Chippewa Company's principal New England competitors had sold to chain store companies in 1925. The sales manager stated that if the company should find it necessary to allow a 20% discount off list prices on sales to chain store companies, such sales would bear some of the company's overhead expenses but would not show a total net profit of more than a fraction of 1% of net sales. No expansion of the company's plant would be necessary. Sales of the Chippewa Company had increased 8% in value and 5% in number of packages in 1925 as compared with 1924. Although many of the sales to chain store companies might be made from the main office, the company anticipated increased salesmen's expense and selling effort to get orders from chain store companies at the outset, and permanently increased salesmen's expense to maintain satisfactory relations with wholesalers after the change in policy. If the company sold directly to chain store companies, the resulting loss of sales to wholesalers might more than offset the sales to chain store companies. Eventually,

salesmen's expenses probably would be slightly lower for sales to chain store companies than for sales to wholesalers. Outward freight on sales to chain store companies also would be slightly lower than on sales to wholesalers.

After careful consideration, the executives of the Chippewa Company, in 1926, again decided to adhere to the company's policy of not selling directly to chain store companies. The executives were convinced that to change this policy, which the company had followed for so long, would reduce the total volume of sales, even if the company sold at the same discount rate to chain store companies and to wholesalers.

Commentary: The grounds on which the company based its decision to continue to confine its sales to wholesalers can be summarized briefly as follows: Four-fifths of the retail grocery stores in New England, according to the company's estimates, were unit stores served by wholesalers. Those stores constituted a major portion of the retail market, which it was not safe to jeopardize. The company's products already were sold by three chain store firms which purchased from wholesalers. There is no evidence that the sales to those chain store companies would have been greater if the Chippewa Company had sold to them directly. To have disturbed the existing relationships between those companies and the wholesalers from whom they purchased probably would have affronted the wholesalers. The company had capitalized its practice of selling only to wholesalers and might have been looked upon as a hypocrite if it had changed its practice without an appreciable change in merchandising conditions having occurred. The company was prospering under existing conditions, and the estimated increase of 4% in its sales that would have resulted from selling directly to chain store companies was less than its increase in sales in 1925.

Under these circumstances it hardly would have been wise for the company to change its established practice. It is doubtful, however, if the company would have been well advised in continuing to emphasize its practice as a ground for retaining the patronage of wholesalers. A substantial increase in the number of chain stores would constitute a market that could not safely be neglected. The chain store enterprise has come to stay, and a manufacturer such as the Chippewa Company needs to have intensive distribution of its products in as many retail grocery stores as possible, including chain stores, in order to attain the maximum volume of sales. It is to be noted, moreover, that the average order placed by the three chain store companies which were

selling Chippewa goods was larger than the average order placed by wholesalers.

The efforts of wholesalers to supplant the manufacturer's brands by their private brands does not indicate that the company's practice of restricting sales to wholesalers was deeply appreciated.

A chain store company operating a central warehouse had strong grounds for claiming the privilege of being classified as a wholesaler, and the experience of the Glencairn Company[2] indicates that a company which had not sought to capitalize a tradition of selling only to wholesalers could accept orders from chain store companies without disrupting its market among wholesalers.

May, 1926 M. T. C.

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[2] Glencairn Company, page 433.

Homer Food Company[1]

MANUFACTURER—FOOD PRODUCT

Distribution Channels—*Use of Wholesalers Supplanted by Direct Sales to Retailers.* Until 1920 the company, which manufactured a nationally advertised, semiperishable food product, sold only to wholesalers and chain store companies, although it employed missionary salesmen to solicit orders from retailers for wholesalers' accounts. Because several wholesalers in the New England territory at that time threatened to discontinue purchasing the company's product unless they were granted what the company deemed an excessive trade discount, the company decided to sell directly to retailers in that territory. After six years' experience with the new plan, the company pronounced it more economical than the previous plan and more effective in increasing sales and in regulating retailers' stocks so that deteriorated merchandise did not reach consumers.

(1920-1926)

The Homer Food Company had national distribution for its one product, a trade-marked food which it had manufactured and sold in package form for many years. The company had advertised extensively in newspapers and on street car posters. Its sales were comparatively small in the southern, middle western, and northwestern sections of the United States, but in the northeastern part of the United States its product was stocked by a majority of the unit and chain retail grocery stores.

Until 1920 the company sold only to grocery wholesalers and chain store grocery companies. In New England in 1920 it had 250 active wholesale accounts, which it solicited with 10 missionary salesmen. These missionary salesmen not only took orders from wholesalers but also obtained orders from retail grocers for designated wholesalers' accounts. A missionary salesman called on each retailer in his territory about once in eight weeks. Selling terms to wholesale grocery firms were list prices less 10%, 2% cash, net 30 days. Terms to chain store grocery companies also were list prices less 10%, 2% cash, net 30 days; if, however, a chain store company gave reasonable assurance of purchasing an approximate minimum of 40,000 pounds yearly, it was given terms of list prices less 10%, less 3%, 2% cash, net 30 days.

[1] Fictitious name.

These terms included freight or parcel post to destination. A large wholesaler occasionally purchased as much as 400 pounds of the company's product a week, or 20,000 pounds a year. Each chain store company to which the Homer Food Company gave the extra 3% discount purchased an average of about 800 pounds per week, or approximately 40,000 pounds a year. Both the wholesale grocers and the chain store grocery companies usually placed orders with the company once a week. The company maintained a sales branch and a warehouse in the suburbs of Boston and could give 24-hour delivery to about 50% of the New England territory.

Early in 1920 several of the company's New England wholesale customers demanded 15% discount from list prices. They stated that if this discount were not granted they would discontinue carrying Homer food. The executives of the Homer Food Company were convinced that they could not sell profitably on those terms. They thereupon announced that because of the threat of the wholesalers they would undertake to sell directly to retailers in New England at list prices less 2% for cash in 10 days, net 30 days, freight or parcel post prepaid. The executives also announced that the company would continue to fill, at the usual terms, any orders received from New England wholesalers, but stated that the time of the New England salesmen would be spent in soliciting retail orders to be filled directly. The company did not anticipate selling directly to retailers in other parts of the United States.

List prices were the prices at which the company advised and expected wholesalers to sell to retailers. In 1920 list prices less 10% allowed the wholesalers a gross margin of 3.7 cents a pound and allowed the retailers, if they resold at the company's suggested retail prices, a gross margin of about 16%. The company packaged its product in half-pound and pound packages. It was the company's desire that consumers should be encouraged to buy in the one-pound size. In July, 1925, the list price for a one-pound package was increased from 37 cents to 42 cents and the suggested retail price was increased proportionately from 44 cents to 50 cents. At that time the retail price of a half-pound package was 25 cents. These prices allowed the retailers a gross margin of 16%.

The company met keen competition from the brands of other

manufacturers. Since the company's product was not one of universal use for which there was a spontaneous demand, it was necessary for the company to create a desire on the part of the public to use the article and to favor the Homer brand. The sales manager estimated roughly that an average grocery retailer sold about 200 pounds of the Homer brand and competing brands every two months. Since the company's product was subject to deterioration, it was detrimental to the reputation of the brand to overstock the retailers. The Homer Food Company accepted at list prices from retailers any packages of Homer food that showed signs of deterioration. The date of packaging was printed plainly on each case in which Homer food was packed. A code figure indicating a date corresponding to the date on the case appeared on each package also, so that a wholesaler or retailer need never be in doubt as to the age of his stock.

Prior to 1920 the wholesalers had not been successful in increasing the proportion of one-pound packages sold to their total sales. The wholesalers, moreover, had not examined retailers' stocks regularly or encouraged retailers to display prominently the posters with which the manufacturer supplied them. The wholesalers also frequently had cut the list prices to retailers.

In 1920 the company had about 100 salesmen selling to wholesalers throughout the United States and also soliciting orders from retailers for wholesalers' accounts. The executives of the company estimated that approximately one-half the total orders which the company received from wholesalers had been secured for the wholesalers by the company's salesmen. The proportion of orders secured in that way varied widely in different territories and was not known exactly.

In 1926 the company with its six years' experience in selling directly in New England was satisfied that for that territory direct selling was a sound policy. In 1926 the company had more than 20,000 retail customers, most of whom were retail grocers but some of whom operated delicatessens and restaurants.

When it began to sell directly in New England, the company had anticipated difficulties in collecting the increased number of small accounts and a heavy increase in clerical and collection expense. In January, 1920, 14 salesmen and 2 supervisors had been added to the force of 10 salesmen then selling in New England. The 14 new salesmen were almost all experienced Homer

Food Company salesmen transferred from other territories or else men who had sold other food products to wholesalers. None of those men ever had made collections as a regular part of their duties, and none in 1920 were enthusiastic at the prospect of becoming both salesmen and collectors. However, in 1926 on over 20,000 retail accounts the losses from bad debts did not exceed 1/7 of 1%. The salesmen had collected in each of the 6 years from 1920 to 1925 inclusive more than 75% of their direct sales other than sales to chain store companies. Those companies usually made payments directly to the Boston branch. In June, 1926, the company did not have more than 200 active retail accounts over 60 days old. The turnover in sales force had been negligible.

The salesmen were instructed to sell to any retailer once, regardless of his credit position. An initial order was not to be for an excessive quantity but must be for at least six pounds, since that was the smallest quantity that the company would ship. The company wished to get at least a minimum stock on every retail grocer's shelves regardless of his credit position or the standing of his store. Even if the grocer paid the company nothing for the order, it was reckoned that the advantage of having that quantity of Homer Food on display for 30 days was worth the loss.

Ordinarily, a second shipment was not made to a retailer who had not paid his bill on the salesman's first trip for collection, which was usually 30 days after shipment. The salesman might take the retailer's order, but it was not to be filled until the previous bill had been paid. This policy usually was adhered to strictly; under special circumstances, however, the rule might be waived at a salesman's request. In 1925 the 24 salesmen each week spent, on an average, slightly more than one-eighth of their total working time making collections.

Each salesman was provided with an automobile by the company and was required to report every automobile expenditure, substantiated by vouchers, and also speedometer readings of miles traveled for the day reported. In 1925 for the 24 salesmen the average automobile expense, including depreciation and interest on the investment, amounted to 6.6 cents a mile.

The salesmen worked 5½ days a week. Saturday morning was considered as suitable as any other time for making sales calls.

(Mail in to Office Each Night)

COLLECTIONS

HOMER FOOD COMPANY, BOSTON BRANCH, BOSTON, MASS.

Salesman ______________ Date of Report ______________

Net Amount Collected
Deduct Checks
Cash Balance for Day
Previous Cash Balance
Cash on Hand
Money Order) Enclosed
Cashier's Check)

Sheet No.
Posted by
Date Posted

Customer's Name	Address (Give street address when possible)	Date of Invoice	Folio	Amt. of Collection Before Discount Is Deducted	Cash Discount	Allowance	Checks	Net Amount of Collection

SEND REMITTANCES PROMPTLY on dates specified by the office. Correct addition and subtraction is very important.

Exhibit 1: Salesman's report form for daily collections.

DAILY REPORT OF

Salesman ______________

IMPORTANT
This form must be mailed every evening

Territory ______________

Date ______________

Names and Addresses of Prospects "Not Stocking"—Give Reasons

Names and Addresses of Customers "Not In"—Whose Stock Is Low

This Report Mailed from

Enclosures

No. Orders
No Through Wholesaler Orders
Return Food Vouchers
Orders for Signs

Fill in Below on Thursdays Only

Starting ______________ Week of
Territory Next Monday

Total Speedometer Reading ______________ Miles Today ______________

Mailing Addresses for Next Week
Report Changes by Wire
If Necessary

Towns or Cities Visited or Section of City	Calls	Back Calls	Sales	Pounds Sold Retail	Pounds Sold through Jobber	Pounds Sold Jobber	Collection
Total							

Hotel / Place	Monday
Hotel / Place	Tuesday
Hotel / Place	Wednesday
Hotel / Place	Thursday
Hotel / Place	Friday
Hotel / Place	Saturday

Exhibit 2: Salesman's report form for daily sales activities.

The salesmen were paid weekly salaries and, if the company saw fit, a bonus at the end of the year. Each salesman was given two weeks' vacation each year with full pay. With the 24 salesmen the company covered every city, town, and village in New England. Ordinarily, a salesman called upon each retailer in his territory once every four or five weeks. The sales manager estimated that for the type of food product that the Homer Food Company manufactured the average rate of stock-turn in retail stores was 10 times a year. The salesmen made daily reports of collections on a form such as is shown as Exhibit 1. They also reported sales each day. The form used for that report is shown as Exhibit 2. With his report of sales for the day the salesman enclosed reports of individual orders taken that day. The data concerning each order were entered on a separate sheet, shown here as Exhibit 3. The sheets used for wholesale orders were blue and those used for retail orders were white. The salesman usually made the required entries on these sheets in the evening from in-

This order sold subject to acceptance by Homer Food Company,
Boston Branch, Boston, Mass.

HOMER FOOD COMPANY

Boston ______________

Sold to ______________

Street and No. ______________

City and State ______________

Territory No. ______________

Salesman ______________

Shipped by ______________

Order No. ______

Billed ______

Extended ______

Checked ______

Stock ______

Ledger Folio ______

		Reg. No.	Size	Price	Amount	Total

All orders for future delivery are taken subject to price in effect at date of shipment

Exhibit 3: Salesman's order report form.

formation contained in his pocket order book, a blank page of which is reproduced as Exhibit 4. When a salesman accepted any Homer food which a customer wished to return, he filled out and sent in with his daily reports forms shown as Exhibits 5 and 6.

Salesmen were required to enclose checks received during the day with their daily collection reports, but were to remit for cash collected only twice a week. Remittances for cash collected were made by post office money order or cashier's check. The salesmen were not allowed to deposit cash collected to their own accounts and remit with their own checks. This rule made it impossible for funds belonging to the company to be attached

This order sold subject to acceptance by Homer Food Company
Boston Branch, Boston, Mass.

Order No. ______________ Date ______________

Messrs. ______________

Ship to ______________

Address ______________

Terms ______________ When ______________

HOMER FOOD COMPANY BOSTON BRANCH, BOSTON, MASS.

No. of Cases	Quantity	Size	Price

All orders for future delivery are taken subject to price in effect
at date of shipment

Signature of Buyer ______________

Signature of Salesman ______________

Exhibit 4: Page from salesman's pocket order book.

by a salesman's creditors. Each salesman was bonded for $3,000.

From the salesmen's daily reports of sales activities and collections (Exhibits 1 and 2) a weekly activity report was prepared each week at the Boston branch for each salesman. The form used for this report is shown as Exhibit 7.

In 1926 the company had 35 active wholesale accounts on its books for New England. Twenty-eight per cent of total sales in New England were made to those 35 wholesalers, 27% were made to chain store grocery companies, and 45% were made to unit grocery stores and delicatessen stores. The executives estimated that approximately one-half the merchandise sold to the

Salesman ______________________ Date ____________

THERE HAS BEEN TAKEN FROM

Name

Street

City

Packages of Homer Food as follows:

Size	Fill in NUMBER OF PACKAGES
1 lb.	
½ lb.	

For which I have received payment from the
HOMER FOOD COMPANY, the sum of

Dollars Cents

To be signed by Customer

Exhibit 5: Report form for returned goods.

wholesalers was resold by them to retailers who were situated in such remote locations or were such poor credit risks that the company had found from previous experience that it could not afford the time necessary to sell to and collect from them. It was the company's opinion that in order to stay in business such retailers at least would pay the wholesalers from whom they bought a majority of their goods. The wholesalers resold the other half of the merchandise which they purchased from the

Date ____________

RETURNED FROM

Name

Street

City

Packages of Homer Food as follows:

Size	Fill in NUMBER of PACKAGES
1 lb.	
½ lb.	

Reason for Returning

Instructions for Office

To Be Signed by Salesman

Exhibit 6: Report form for returned goods.

company to retailers who for some reason preferred to purchase through the accustomed wholesale channels, to retailers for fill-in orders at periods between visits of the Homer Food Company's salesmen, or to other wholesalers. Although in 1920 the salesmen had discontinued calling on wholesalers or taking orders for their accounts, certain wholesalers had continued to purchase from the company and by 1926, in accordance with their request, the salesmen were calling on the 35 wholesalers when convenient.

The Homer Food Company had a sign which it endeavored to have placed in a conspicuous position in every retail store which sold Homer food. It was part of a salesman's duty to see that this sign was advantageously displayed in the stores. Other duties of the salesmen were to see that every retailer had at least a minimum quantity of Homer food on hand, to take back for exchange or refund any unsightly or deteriorated packages of Homer food on retailers' shelves, and to learn about all local fairs at which the company might in some way advertise its product. Salesmen and the sales supervisors were expected to report all significant facts that they observed concerning sales of the company's product, competitors' progress, and competitive innovations, and to suggest means to help the company increase its prestige in the competitive market.

The general sales manager of the company emphasized the importance of a large number of calls by salesmen per day. He maintained that in a closely settled district such as Boston a retail salesman should make from 60 to 70 calls a day and that 1 sale in every 4 calls was a reasonable average. At every call the salesman was to determine the retailer's stock, to make a collection if necessary, to pick up any soiled packages, to see that the product and the sign were conspicuously placed, and to speak with the buyer if only for a minute. The two sales supervisors visited the territory between salesmen's calls. They took any orders given them, but their chief duty in traveling over the territory was to ascertain whether the salesmen's daily reports were accurate. The supervisors did not solicit complaints concerning the salesmen but listened to any that were made. The sales manager was convinced that his two supervisors were not regarded as spies by the retailers. A summary of the salesmen's activities in 1925 is given in Exhibit 8.

Although the company's salesmen did not sell directly to man-

WEEKLY ACTIVITY REPORT

Salesman ______________________ Week Ending ____________

Towns Called On	Calls	Back Calls (Collection Calls)	Sales	New Direct Accounts	Pounds Sold Retailer	Pounds Sold Wholesaler	Total Pounds Sold	No. of Collections Made	No. Old Food Vouchers	Miles Each Day	Speed-ometer Reading

Exhibit 7: Summary report form for salesman's weekly activities.

EXHIBIT 8

ACTIVITY REPORT OF THE 24 NEW ENGLAND SALESMEN OF HOMER FOOD COMPANY FOR 1925

	Per Man	
	Per Week	Per Day
Average number of regular calls*	268	49
Average number of back calls†	36	7
Average number of all calls	304	56
Average number of sales	69	12.5
Average number of pounds of product sold	1,331	242
Average number of collections made	55	10
Average number of miles traveled by auto	266	48

*The 24 men covered every city, town, and village in New England regularly. The average time for a circuit of a territory was four weeks.
†Back calls were calls made for collection purposes.

agers of the stores operated by chain store companies, they were expected to call at about five chain store branches a day for a week at intervals of about six weeks. The purpose of these calls was to see if a sufficient stock of Homer food was on hand and conspicuously placed.

The average salary of the 24 salesmen was about $42 a week. In 1925 the total average sales per salesman were 66,550 pounds, which at list prices represented a gross value of $27,951. The average unit sale was for 19.3 pounds. Including salaries, automobile expense, and food and lodging, the average salesman's expense amounted to slightly more than 5 cents per pound sold. The company allowed wholesalers a gross margin of 4.2 cents a pound. If the wholesalers' request for a 15% discount had been granted, the wholesalers' gross margin would have amounted to 6.3 cents a pound. In addition to the discount allowed wholesalers, the company incurred a selling expense on sales to wholesalers of 4.5 cents a pound. Direct selling, therefore, was cheaper than the old plan, and in addition the popularity of the company was enhanced by the additional services which the salesmen rendered.

Yearly increases in the company's sales in the New England territory were as follows:

1919, 246,000 pounds over 1918
1920, 386,000 pounds over 1919
1921, 450,000 pounds over 1920
1922, 360,000 pounds over 1921

1923, 640,000 pounds over 1922
1924, 376,000 pounds over 1923
1925, 120,000 pounds over 1924

The price change of July, 1925, was the cause of the smaller increase in sales for that year. Sales for 1926, judged from the first six months of that year, promised to show a substantial increase over 1925. Advertising expenditures in 1925 were approximately the same percentage of net sales as they were in 1920.

The executives of the company stated that direct selling in New England had proved conclusively to be more economical than the previous method of selling to wholesalers. Under direct selling the company's product had been advertised effectively to retailers and sales had increased. The company's salesmen had been successful in increasing the proportion of sales in pound packages to total sales. The retailers received their goods more promptly and in better condition than they had when purchasing from wholesalers. The general manager stated that the company's experience showed that a manufacturer of a branded food specialty could sell successfully to the retail grocery trade in New England provided a demand had been created before the direct selling was inaugurated. In the sales manager's opinion, a large number of calls per day was the most important single factor in direct selling by manufacturers whose products were subject to deterioration so as to make large unit sales to retailers impracticable. The activity report for 1925 (Exhibit 8) indicated that the average call, if salesmen worked eight hours a day, was not longer than four to five minutes, if four minutes was assumed to be the time taken between calls. The sales manager stated that the company's salesmen had established a reputation of being non-waiters and non-wasters of time, and because of this usually secured promptly the short interview desired.

Commentary: The Homer Food Company's decision to sell its product directly to retailers in New England was precipitated by the demand from wholesalers for an increase in the trade discount which the company allowed them. Inasmuch as the company's plan operated successfully, it is not fitting that the wisdom of that decision should be questioned. The problem rather is to ascertain, if the available evidence permits, what the reasons were for that success.

The company adopted a method of selling which ordinarily has been deemed impracticable under the conditions that obtained. The unit purchases of the product by retailers were small. The retailers in whose stores the article was sold were numerous, scattered over the entire market area, and not predominantly good credit risks. It was necessary that these retailers should be visited frequently. It generally has been believed that under such circumstances the cost of direct selling would be prohibitive. Nevertheless, the company's selling expense under the new plan not only was less than the 15% discount demanded by the wholesalers, but it was less than the sum of the company's selling expense under the old plan and the 10% discount to wholesalers.

In accounting for the company's success in direct selling, the first point of significance is that the company had deemed it necessary to employ missionary salesmen not only to introduce the product to new retailers, as in the Chickamauga Company's case,[2] but to solicit routine orders continually from retailers to be filled by wholesalers. The wholesalers had received the regular 10% discount on those orders although the company had borne the expense of obtaining them. Hence, on the volume of orders which previously had been turned over to the wholesalers, the only additional burdens assumed by the company when it filled the orders directly were the cost of credit and collections and a somewhat heavier shipping expense, while the 10% commission was saved to the company.

Other reasons for the success of the direct sales plan in this instance were the active demand from consumers for the well-known product, the frequency of the repeat demand, the greater effectiveness of the company's sales force in distributing signs and arranging for display of the merchandise in retail stores, the safeguarding of the quality of the semiperishable product, and the standards which were established for a large number of calls per day by each salesman.

The advantages of direct sale in marketing a semiperishable product were pointed out in the National Biscuit Company case.[3] The fewer the hands that the product passes through, the shorter is the time interval before it reaches the consumer, and, therefore, the less the danger of deterioration. The scheme for having the salesmen make such a large number of calls per day was a bold innovation that merits serious study by other manufacturers. Without this scheme the direct sales plan probably would have resulted in a heavy selling expense to the company when it dispensed with the services of the wholesalers. The small losses from bad debts and the facility of the salesmen in making collections also are facts of surprising import.

The experience of the Homer Food Company, to my mind, indicates

[2] See pages 450-453. [3] 3 H.B.R. 414.

that when a manufacturer finds it necessary to employ missionary salesmen to call on retailers frequently to secure routine orders, then the company may as well take over the entire wholesale function and retain for itself the margin previously allowed to wholesalers.

October, 1926 M. T. C.

Chester Company[1]

MANUFACTURER—SHOE DRESSINGS

Trade-Marks—*Production by Manufacturer for Sale Under Blanket Trade-Mark of Selling Company.* A company which manufactured a complete line of pastes and liquid dressings for shoes sold its products under one advertised and two unadvertised trade-marks. About 75% of its sales were made directly to shoe retailers and the other 25% to shoe findings wholesalers. A selling company which was being organized to sell a complete line of shoe findings, to be produced by various manufacturers under a blanket trade-mark, asked the company to manufacture its products for sale under the blanket trade-mark. In spite of the fact that the new line would compete with the products sold under its established trade-marks, the company decided to accept the proposal, which would enable it to secure distribution among an increased number of wholesalers and also to obtain an unusually wide gross margin on the sales made through the selling company.

(1925)

Early in 1925 the Chester Company, which manufactured a complete line of pastes and liquid dressings for shoes, was asked by a newly organized sales company to produce shoe dressings and pastes for sale under a blanket trade-mark which that company planned to develop for a full line of shoe findings.

At that time the Chester Company was selling its products, which included more than 120 items, under one advertised and two unadvertised trade-marks. Under the advertised trade-mark, the Lady Dainty, the company sold liquid dressings for women's shoes. Lady Dainty dressings retailed for 50 cents a package. Those dressings were duplicated in a reliable but somewhat lower grade and in smaller packages under the company's unadvertised Sparklet trade-mark. The Sparklet line was complete and all items in it sold at retail for 25 cents a package. The shoe pastes which the company sold under the unadvertised Glos-Shine trade-mark also retailed at 25 cents a package.

During the 40 years that it had been in operation, the Chester Company had attained national distribution for its products. Approximately 75% of its sales were made directly to shoe retailers, and approximately 25% were made to shoe findings whole-

[1] Fictitious name.

salers. The wholesalers to whom the company sold were comparatively small in most instances. In 1925 the company was employing 25 salesmen, two of whom it paid on a commission basis and the remainder of whom it paid by straight salaries. The average sales expense for the company as a whole, exclusive of advertising, was 25% of net sales, and each salesman paid on a salary basis was expected to make sufficient sales to keep his expense percentage within this average. The company's sales in 1924 amounted to $540,000 and were divided about equally between the advertised Lady Dainty goods and the unadvertised goods.

Beginning in 1922, the Chester Company had spent each year an amount approximately equal to 5% of sales for magazine advertising and dealer helps for the Lady Dainty dressings. Each spring and autumn, the company had advertised those dressings in *Vogue,* the *Pictorial Review,* the *Delineator, Photoplay,* and *Good Housekeeping.* The size of the insertions had varied with the magazines used. In *Good Housekeeping,* the *Delineator,* and the *Pictorial Review,* the company had used approximately four column inches, whereas during each season it had taken in *Vogue* one half-page and two quarter-pages, and, in *Photoplay,* either seven column inches or a half-page.

The advertisements of Lady Dainty dressings were illustrated attractively. A quarter-page insertion in *Vogue,* for instance, showed a beach scene. The copy used with this illustration was as follows:

THE LURE OF WHITE FOOTWEAR

> Wherever the summer sun is shining and the out-of-doors calls you, dainty shoes of spotless white are exquisite accessories to a charming costume.
>
> It is natural that you will use Lady Dainty Kid White to keep them snowy white and lovely, for this excellent preparation really cleans the leather and preserves its life and lustre.

SOLD BY BETTER STORES—EVERYWHERE

> Lady Dainty Kid White is one of many equally excellent Lady Dainty preparations.

One half-page advertisement appearing in an autumn number of *Vogue* had as an illustration a woman in evening dress, looking down at her slippers. The accompanying copy was:

LADY DAINTY SILVER SLIPPER CLEANER

JUST AS LOVELY AS EVER!

A pair of tarnished silver slippers that but faintly recall the glorious party when first you wore them. For their beauty is dimmed, like joyous memories that have faded into a score of yesterdays.

Touch them, then, with Lady Dainty. A magic wand restores their lustrous loveliness. And poignant recollections stir your heartbeats to anticipate other occasions when the beauty of your Silver Slippers will enhance your own charms again and again.

SOLD BY BETTER STORES—EVERYWHERE

The Silver Slipper Cleaner is but one of a dozen Lady Dainty products, of which the Lady Dainty suede stick and the Lady Dainty White Kid Cleaner also are preparations of unusual excellence.

In addition to its national advertising, the company prepared circulars, display cards, counter cards, and electrotypes for use by wholesalers and retailers in selling the dressings. The dealer helps were closely tied in with the national advertising.

In January, 1925, the Pedstyle Sales Corporation[2] was organized to sell a complete line of shoe findings under a blanket trade-mark. The corporation was promoted by a man who formerly had been the editor of a shoe findings publication. Since no one manufacturer produced a complete line of shoe findings, it was necessary for the Pedstyle Sales Corporation to interest several manufacturers in the project. Before approaching the selected manufacturers, the promoter had secured from one of the largest shoe findings wholesalers in each territory in the United States a definite commitment to sell Pedstyle shoe findings. With these wholesalers definitely committed to selling the new line, the promoter had approached various manufacturers with the proposition that they produce articles to be sold by the Pedstyle Sales Corporation under the Pedstyle trade-mark. When the Pedstyle Sales Corporation asked the Chester Company to manufacture shoe pastes and dressings for the Pedstyle line, it already had reached agreements with manufacturers of insoles, brushes, silk laces, heel grips, shoe and slipper trees, heel cushions, bunion protectors, ankle supporters, arch supporters, mercerized laces, composition half soles, lining repairs, flexible leather, leather cement, fiber top lifts, wood heels, and built heels.

[2] Fictitious name.

According to the proposed arrangements, the Pedstyle Sales Corporation was to obtain orders for the articles, to advertise them nationally, and to provide dealer helps. The manufacturers would make the articles and package them under the Pedstyle trade-mark. All the packages and labels used were to be uniform in color and typography, and the Pedstyle name was to appear on each. The manufacturers would make shipments directly to customers from whom the Pedstyle Sales Corporation had obtained orders, would bill the customers directly, and would make collections. Each month, each manufacturing company would pay 10% of the preceding month's net sales of its Pedstyle products to the sales corporation. These monthly payments were to meet the operating expenses and to provide the profits of the Pedstyle Sales Corporation. In addition to these payments, each manufacturer of Pedstyle products was required to buy a block of the capital stock of the Pedstyle Sales Corporation to provide the initial working capital. No manufacturer entering into these arrangements could be deprived of the right to manufacture Pedstyle products except by a unanimous vote of the other manufacturers who were stockholders in the company.

The promoter of the Pedstyle Sales Corporation asked the Chester Company to manufacture both the 25-cent pastes and liquid dressings and the 50-cent liquid dressings for sale under the Pedstyle trade-mark. The 25-cent line was to bear merely the name Pedstyle, while the 50-cent line was to be known as Pedstyle-Plus. The same type of wrappers would be used for both lines. The Chester Company would be required to purchase $1,800 worth of capital stock in the new corporation. This amount was fixed in accordance with the sales volume which the manufacturer was expected to secure through that organization. The Chester Company was selected by the Pedstyle Sales Corporation because it manufactured a complete line of pastes and dressings and could be relied upon to maintain uniform quality.

The Chester Company had production capacity sufficient to manufacture the volume of pastes and dressings likely to be sold under the Pedstyle brand without interfering with the production of its other lines. The only difference between the articles produced for sale by the Pedstyle Sales Corporation and those produced for sale under the manufacturer's own trade-marks would lie in the cartons, tins, and bottles used.

Most of the wholesalers who had agreed to distribute Pedstyle merchandise were not customers of the Chester Company; only about 5% of the company's sales customarily were made to those wholesalers.

The promoter of the Pedstyle Sales Corporation understood that if the Chester Company accepted his proposal it would continue to sell goods under its own trade-marks and also to advertise the Lady Dainty dressings. The promoter made it clear to the Chester Company that if it did not accept his proposal he would make the same offer to a competing manufacturer.

The Chester Company concluded that by accepting the proposal it would be able not only to obtain distribution among an increased number of wholesalers, but also, in view of the low selling charge of the Pedstyle Sales Corporation, to obtain an unusually wide gross margin on the sales made by that organization. The company was of the opinion that sales of the Pedstyle lines would not seriously affect sales under its own trade-marks, since distribution of those goods was well established. Furthermore, an acceptance of the proposal would prevent a competitor from producing goods for the Pedstyle trade-mark and would act as an insurance against outside competition from that line. In view of these possible advantages, and in spite of the possibility that the Pedstyle line and the company's other lines would be in direct competition at some stage in their distribution, the Chester Company accepted the proposal of the Pedstyle Sales Corporation and began production of the Pedstyle pastes and liquid dressings in May, 1925.

Commentary: Inasmuch as the wholesalers who had agreed to sell Pedstyle merchandise were taking only 5% of the Chester Company's output, the proposal of the Pedstyle Sales Corporation gave the Chester Company promise of an increased volume, for which it had available capacity. By accepting the plan the Chester Company, furthermore, kept a competing manufacturer from accepting it. Despite these advantages, however, the Chester Company was not warranted in accepting the plan.

In the first place, the fact that the wholesalers who had agreed to sell the new line took only 5% of the Chester Company's sales was not necessarily a real argument in favor of acceptance of the plan by the Chester Company. It was entirely possible that those wholesalers

were selling largely to the retailers to whom the Chester Company sold directly. In that event, an increase in sales of shoe pastes and dressings by the Pedstyle Sales Corporation was likely to cut into the sales of goods bearing the Chester Company's own trade-marks.

The chief services that the Pedstyle Sales Corporation offered were the development of a blanket trade-mark for shoe findings and the securing of orders as selling agents. Neither of those services promised to be of paramount importance to the Chester Company. I am skeptical as to whether a blanket trade-mark applied to such a variety of merchandise as insoles, arch supporters, silk laces, bunion protectors, and polishes would be effective,[3] and, for a company which has its own sales organization, the services of selling agents should not be necessary. Under the plan, moreover, the manufacturer would not be relieved of credit and collection expense.

There were several specific disadvantages in the plan. The Chester Company was asked to purchase stock in the selling organization to the amount of $1,800. If the plan failed, this amount probably would be lost outright. The provision whereby no manufacturer who joined the Pedstyle enterprise could be deprived of his right to manufacture Pedstyle products except by unanimous vote of the other participating manufacturers was a protection to such weak manufacturers as joined, and, conversely, a danger to a strong manufacturer such as the Chester Company. The plan did not provide for adequate control over the quality of the merchandise which was to be sold under the blanket trade-mark. If any manufacturer failed to keep up his quality, no adequate means of discipline were provided.

The trade-mark policy of the Pedstyle Sales Corporation in using the Pedstyle mark and the Pedstyle-Plus mark on polishes of different grades could be expected to result chiefly in stimulating the sales of the lower grade. When two grades of a product are sold under marks so closely allied, sales of the lower grade benefit at the expense of the better grade.[4]

The Chester Company's decision to accept the Pedstyle project seems to me to have been unwise. A company with a well-established sales organization is not warranted in employing selling agents in addition. Furthermore, a blanket trade-mark cannot be successful unless adequate provision is made for control over the quality of all the merchandise on which it appears.

May, 1927 M. T. C.

[3] See Ostend Pork Products Company, page 533.

[4] See Badger Watch Company, 1 H.B.R. 420; commentary, 2 H.B.R. 525; Wilda Biscuit Company, 1 H.B.R. 422; commentary, 2 H.B.R. 526.

Ostend Pork Products Company[1]

PACKER—PORK PRODUCTS

Trade-Marks—*Use of a Blanket Trade-Mark.* The company, which sold a variety of pork meat products, butter, eggs, lard, and a shortening made of cottonseed oil and beef stearin, wished to increase its sales of the first grades of its merchandise. The first grades of the meat products and the butter and eggs were sold under the advertised trade-mark, Carlisle. Neither of the company's two types of lards or its shortening ever had been sold under the Carlisle trade-mark. Inasmuch as those products all were of first grade, the company contemplated applying the Carlisle mark to them.

(1926)

The Ostend Pork Products Company was an old and well-established firm with intensive distribution in a group of eastern states. The company's products included baked and roasted hams, bacon, sausages, frankfurts, shoulders, fresh pork loins, lard, and a shortening made of cottonseed oil and beef stearin. The company also purchased eggs and butter for resale. The first grades of the hams, bacons, sausages, frankfurts, shoulders, and loins, and also the butter and eggs, were all sold under the company's advertised brand, "Carlisle." Second and third grades of those products were sold under a variety of unadvertised brands. Neither of the company's two types of lard nor its shortening, all of which were first-grade products, ever had been sold under the Carlisle brand; the lards were unbranded, and the shortening bore the brand "Exeter." In December, 1926, however, the executives were deliberating as to whether to place the Carlisle brand on any or all of those items.[2]

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[1] Fictitious name.

[2] Different practices as to the use of trade-marks were followed by manufacturers. In 1916, the United States Rubber Company had decided to adopt a blanket trade-mark to be used on the products of its subsidiary companies. It was stated that this trade-mark was to resemble a ribbon composed of three stripes of equal width, the one in the center being white and the other two blue. The seal of the United States Rubber Company or the trade-mark of the particular product being advertised or sold was to be superimposed on the ribbon. The size of this new trade-mark was to vary according to the product on which it was used. The trade-mark would appear in so far as possible on the goods themselves and also on the packages. It was to be used, furthermore, in some way in all the advertising of the United States Rubber Company.

It was stated that the United States Rubber Company at that time had about

Most of the company's sales were made by salesmen directly to retailers; the company made some sales to wholesalers, chiefly for resale to hotels and restaurants. Each salesman solicited orders for the company's full line.

The Carlisle brand was well and favorably known as a mark of high quality in the territory in which the company distributed its products. The brand had been advertised for many years in newspapers, street car posters, and by means of dealer displays prepared by the manufacturer; the brand name also appeared prominently on the cartons and wrappers used for the merchandise. In addition to the brand name, the company's name also appeared, although less prominently, in the advertising and in most instances upon the wrappers and cartons used for all grades of Ostend merchandise. The advertising manager was of the opinion that the Carlisle brand was better known among consumers than was the company's name. The Carlisle brand was the only brand that the company advertised; the chief selling point stressed in the advertising was quality. In 1925 the advertising expense amounted to 9.7 cents per 100 pounds sold. In 1924 the expense had been 6.1 cents per 100 pounds sold. The advertising manager stated that the advertising expense customarily had not been more than 5 cents per 100 pounds of sales.

It was the opinion of the executives that the company's future, in competition with large middle western packers, depended upon the establishment of a reputation for quality and service—that the western competition could not be met successfully on a basis of price. Meat products were highly competitive and as a rule the prices charged by all packers were practically the same for corresponding types of merchandise. The executives of the Ostend Pork Products Company had concluded that this close price

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50 subsidiaries which manufactured a group of products, each using a variety of well-established trade-marks. Over 1,000 separate articles were manufactured, including automobile tires, footwear, gloves, bicycle tires, bathing caps, and many others. *Printers' Ink,* March 30, 1916, pp. 25-27.

Armour & Company developed the "Oval Label" as a blanket trade-mark for many of the Armour products. *Printers' Ink,* January 23, 1913, pp. 3-10; February 27, 1913, pp. 3-8.

The N. K. Fairbanks Company, on the other hand, which manufactured Snow White, Fairco, and Boar's Head for shortening, Cottolene, a cooking fat, Covo, a salad oil, Gold Dust, Fairy toilet soap, Fairy Flakes, Pummo hand soap, Glycerine tar soap, Polly Prim scouring soap, Sunny Monday, Santa Claus, Clairette, Dandy, Ark, Mascot, and Chicago Family laundry soaps, had avoided the use of a blanket trade-mark and had not sought to identify these products with the name of the company manufacturing them. *Printers' Ink,* June 12, 1919, pp. 17-18.

competition might be avoided if the company sold its products under a brand widely advertised as a mark of quality. The company consequently sought to build up its business in first-grade merchandise bearing the Carlisle brand. The salesmen continually were urged to push the Carlisle brand in preference to the other brands.

In the interests of economical production, it was essential for the company to manufacture some second-grade merchandise. The proportion of second-grade merchandise that inevitably had to be produced to avoid waste, however, was far less than the proportion that actually was sold. For instance, 20% of the company's sales of ham were of the Carlisle brand and 80% were of second grade, whereas it was estimated that a desirable division from the point of view of production would be 85% Carlisle hams and 15% second-grade hams. The company wished to have a complete line so as to be able to meet all its customers' requirements of pork and directly related products, however, and there appeared to be a strong consumer demand for the second-grade merchandise. Notwithstanding the sales emphasis placed on the Carlisle brand, the company's sales of merchandise bearing that brand amounted to only 9% of total sales in 1925.

In an effort to increase sales of Carlisle hams, the company at one time had removed its name from its second grade of hams and had applied a distinctive brand to that grade. The second grade was of good quality and was so widely known that the executives were of the opinion that it had interfered with sales of the first-grade, Carlisle hams. After the company removed its name from the second-grade hams, sales of Carlisle hams showed an immediate increase. That increase, however, was much more than offset by the simultaneous decrease in sales of the second-grade product.

The company manufactured fancy, kettle-rendered leaf lard and so-called "pure lard," in one grade only. Leaf lard was manufactured solely from two small leaves of fat found in the hog, whereas in the manufacture of pure lard a wider variety of fat was utilized. The leaf lard had been on the market for more than 60 years. In 1926 it still was being sold in plain, uncolored pails of the type originally used. The company's name was embossed on the pails, but the product bore no brand name. In addition to being sold in two-, four-, and eight-pound pails,

the item also was sold in one-pound cartons. Sales of this product in 1925 amounted to $187,000 and represented 14.5% of the company's total sales of lard. Sales of the fancy leaf lard had been decreasing for a period of years, and the executives anticipated further decreases inasmuch as the pure lard was a high-grade product and satisfactory for all purposes for which the more expensive leaf lard could be used.

Eighty-five and five-tenths per cent of the company's sales of lard were of the pure lard, which was of as high a quality as any lard of that type on the market. The company's name appeared on the cartons and pails in which this lard was sold, and this item, like the fancy lard, bore no brand name. Sales of pure lard were increasing steadily.

The company's shortening, sold under the Exeter brand, also bore the company's name. The demand that had developed for a lard substitute less expensive than lard made it necessary for the company to manufacture this product if its line was to be complete. The item ranked with other high-grade vegetable shortenings on the market, but housewives in general considered it inferior to the leaf or pure lards for cooking purposes. Inasmuch as the cottonseed oil and other raw materials entering into the shortening were in no sense by-products of the company's main operations but had to be purchased independently, the company's gross margin on the product usually was less than its gross margins on the lards. At times the shortening was sold at no profit or even at a loss, depending in part upon cottonseed prices, which varied widely with changes in the market supply of cottonseed, and in part upon the competitive price level for the product. Competing firms which concentrated on the production of items made from cottonseed oil sometimes were able to sell at lower prices than were warranted by the company's production costs. The company had deemed it necessary to follow the general competitive price level. The company had made no effort to stimulate sales of shortening.

Ostend lards and shortening had not been advertised except by the inclusion in the packages of booklets or recipes or by brief mention in the advertisements of the other products. The two types of lards and the shortening all were sold in packages of the same range of sizes. The company's prices to retailers in December, 1926, were 18¾ cents a pound for the leaf lard, 15¾ cents

a pound for the pure lard, and 12¾ cents a pound for the shortening. The differential in the prices of the two lards remained practically constant, but the differential between those prices and the price of the shortening varied with the frequent changes in the price of the shortening.

The executives were inclined to think that the Carlisle brand should be applied to at least one of the two types of lard. If the company's usual policy was followed, the brand would be applied to the fancy leaf lard rather than to the pure lard. In view of the decreasing popularity of the fancy lard, however, it appeared that it might be advisable to apply the brand to the pure lard, or, perhaps, to both lards. One of the chief objections to placing that brand on the lards, in the executives' opinion, was the fact that those items had come to be well known among retailers and consumers simply as Ostend products. Although the executives had no desire to promote sales of the shortening at the expense of the lards, they were of the opinion that it might be sound policy to include that product under the Carlisle brand also.

COMMENTARY: Two major questions are presented in this case. The first relates to the use of the company's name on both the first and second grades of its product. The second concerns the practicability of applying the same trade-mark to a variety of products.

The company's experience in the experiment of removing the Ostend name from the second-grade hams indicates that trading down had occurred previously, even though the Carlisle mark did not appear on the second-grade products. In this respect the case is analogous to the Wilda Biscuit Company case.[3] In the case of the Ostend Pork Products Company, however, so large a part of its sales of ham were of the second grade that the situation practically had become one of trading up;[4] the sales of the second grade, which predominated in volume, had been stimulated by the advertising of the first grade, even though the two were associated only by the company's name and not by trade-mark. Under the circumstances, it is indeed doubtful if the company could have gained by completely disassociating the two grades; it is hardly probable that the sales of the first grade could have been increased, except by a prohibitive advertising expenditure, to a point where the loss in sales of the second grade would have been offset. The foregoing conclusion, however, does not imply that

[3] Wilda Biscuit Company, 1 H.B.R. 422; commentary, 2 H.B.R. 526.

[4] Badger Watch Company, 1 H.B.R. 420; commentary, 2 H.B.R. 525.

it would have been sound policy to apply the Carlisle name to second-grade products. Such a procedure would have lessened the prestige of the name and weakened its influence even in trading up.

The fact that the sales of pure lard were so much greater than the sales of leaf lard is not to be attributed to trading up or trading down. The two types of lard, to be sure, were both identified by the company's name. The difference in sales here, however, was not caused by brand considerations. The pure lard satisfied all the lard requirements of most housewives, and such superiority as the leaf lard possessed was of little practical significance from the sales standpoint.

The second question, as stated, concerned the use of a blanket trade-mark. For the hams, bacon, sausages, frankfurts, shoulders, and pork loins, the same trade-mark, Carlisle, could well be used. Those products were all of first grade. They also appealed largely to the same buying motives, such as taste, satisfaction of the appetite, and perhaps emulation of the connoisseur. That group of articles could be given individuality through advertising by associating the Carlisle mark definitely with such primary buying motives as were just mentioned.

To have applied the Carlisle mark to lard, however, would have been unwise, and I am doubtful as to the practicability of placing the Carlisle mark on butter and eggs if that mark was to exercise a positive sales influence. Lard is such a standard, well-known article that the chief buying motives for it are selective rather than primary.[5] The housewife, in buying lard, seeks chiefly dependability in quality and makes her selection among the various brands on that basis. In other words, the brand gives assurance of quality. I should expect that for butter and eggs, likewise, dependability in quality would prove to be the chief characteristic to be associated with a brand name.

There was a real contrast, therefore, between the motives to which appeal could be made effectively for the purchase of lard and the motives for the purchase of such items as ham and bacon. It is true, to be sure, that the demand for foods in the making of which lard was

[5] "....A primary motive is one which imparts to consumers the major, initial impulse to purchase the kind of article offered for sale. In an advertisement of clocks, for example, in which the sales message centered on the point that such a clock is 'one of the few truly permanent things that enter into homemaking,' the primary appeal was to the motive of *securing home comfort*—the desire to make the home more livable by the installation of an attractive clock. A selective motive, on the other hand, is one in which the aim is to divert the consumer's expenditure away from other brands of the same article. It does not recognize the fact that for most articles it is necessary to compete for the consumer's patronage, not only with other brands of the same article, but also with many other articles serving different purposes. The *economy in purchase*, or price, motive is an example of a motive that is selective. The average consumer does not purchase an article merely because it is cheap. First there must be a primary motive to purchase the article. Price then may come in to determine the choice between competing brands." Melvin T. Copeland, *Principles of Merchandising*, p. 160.

an ingredient was governed by much the same motives as governed the demand for ham, but those motives could be applied only indirectly to lard. For lard itself, the chief buying motives were selective. Without entering into a more elaborate discussion of that point, I will state merely that recognition of such distinctions as have been made between the buying motives for these articles affects the success of many advertising programs.

If the Carlisle mark was to stand merely for a guaranty of quality and was not to be associated with such primary buying motives as were mentioned, it could have been applied without objection to all the first-grade articles, except shortening, sold by the company. Such an application of the Carlisle mark, however, would have weakened its potential influence as a positive sales factor. This conclusion holds true generally for a blanket trade-mark when the articles to which it is applied appeal to diverse buying motives. For this reason a blanket trade-mark often appears colorless in contrast to a highly individualized mark, such as Old Dutch Cleanser or Crisco, for example.

For the shortening, the company was following a sound policy in using a distinct brand, Exeter. The shortening should not have been advertised under the Carlisle brand, for the same reasons that lard was not properly admissible. To advertise lard and shortening under the same brand, moreover, would not have been advisable, because it was not desirable to imply that the same results could be achieved by the use of the substitute as by the use of lard, and the company's major interest was in maintaining its volume of sales of lard.

In conclusion, it is to be noted that the company had not fully accomplished the objective at which it aimed originally in its trade-mark and advertising policy. The company's original purpose was to stimulate a demand for its first-quality products which would enable it to avoid competing intensely with the western packers. A large portion of the company's sales, however, were of its second-grade products, in the highly competitive field. One reason for this result I judge to have been the emphasis which the company placed on the selective buying motive of dependability in quality rather than on primary buying motives, with a highly individualized Carlisle mark. The practice of having the company's name appear on both the first- and second-grade products, moreover, aided the latter at the expense of the former. Under the circumstances, the company probably could not have risked a change in its current trade-mark practice, but the case illustrates significantly the necessity of differentiating completely and from the outset between different grades of products where grades cannot easily be distinguished by consumers at time of purchase. The case also emphasizes some of the weaknesses in the use of a blanket trade-mark.

January, 1927 M. T. C.

Lincoln Stores Company[1]

CHAIN STORES—CANNED FRUIT

MERCHANDISING—*Substitution of Nationally Advertised Brand for Exclusive Agency of Non-Advertised Brand.* A company operating 150 grocery stores in and near one city sold a brand of canned fruits for which it held the exclusive agency in its territory. Because the manufacturer did not advertise this brand, it gave the company an advertising allowance for each case purchased. The same manufacturer canned fruits of equally high grade under a nationally advertised brand, which was carried by nearly all the chain store company's competitors. Although its sales of canned fruits had been considered satisfactory, the company learned that sales of the nationally advertised brand by chain store companies in another city were relatively larger than its own sales. Because it believed the extensive advertising was causing a steady growth of sales of the nationally advertised brand, the company decided to substitute that brand for the unadvertised one in its stores.

(1926)

The Lincoln Stores Company operated 150 grocery stores in and near a city with a population of approximately 500,000. The company's sales volume in 1924 was $9,300,000. The rate of stock-turn for the stores and the warehouse as a whole was slightly less than 9 times a year, but stock in the stores was turned every two and one-half or three weeks. The stores were so located that the company served all classes of customers. More than 900 items of merchandise were carried in the stores. No meats, except salt pork and bacon, were carried. A few perishable vegetables were offered in season; semiperishables, such as citrus fruits, potatoes, and onions, were handled regularly.

In the line of canned fruits, the Lincoln Stores Company carried peaches, pears, pineapple, apricots, cherries, fruit salad, and plums. Sales of these canned fruits in 1924 amounted to approximately $220,000. Over 95% of the canned fruits were sold under the trade-mark "Monico," which, although a packer's trademark, was looked upon by the company as being practically the equivalent of a private brand, since the Lincoln Stores Company was the only firm to advertise and sell that brand of canned goods in its territory. In the fall of 1925, the president of the Lincoln

[1] Fictitious name.

Stores Company considered purchasing a nationally advertised line of canned fruits.

The 150 stores were under the direction of a stores' superintendent, who was responsible to the president. The stores' superintendent had as assistants 8 district managers; each manager was in charge of from 15 to 30 stores, the number depending chiefly upon the distance between the stores. The district managers inspected the stores in their respective groups daily. The purposes of the inspections were to see that the stores were clean, orderly, and in repair, and that the cash registers were working correctly; to deliver retail price bulletins from the central office and to make sure that the merchandise was marked accordingly; to collect from the store managers daily reports showing, for the previous day, merchandise received, sales, and other credits; to collect, once a week, orders for merchandise; and to authorize mark-downs on perishable and semiperishable merchandise.

Some of the store managers had had previous experience in grocery stores, but most of them were new in the business. The company provided a two-week training course for the inexperienced managers. Each store manager was paid a straight salary, plus a commission amounting to 1% of the sales in his store; the commissions averaged about 20% of the managers' earnings. About 15 of the store managers had assistants who worked full time; in the other stores, where the volume of business was less, school boys were employed in afternoons and on Saturdays as needed. Sales force expense in 1924 was approximately 7% of sales.

No credit was granted to customers, nor was there any delivery service. Occasionally, however, a store manager or his assistant delivered purchases to customers living nearby. The stores' superintendent discouraged delivery accommodation because of the possibility that customers would come to expect it as a regular service.

The Lincoln Stores Company advertised in its stores and in daily newspapers four or five "price leaders" for each week and two or three "specials" for Thursday, Friday, and Saturday; on those three days the stores made the majority of their sales. The company had used handbills at one time but had come to the conclusion that they were an unprofitable medium for advertising. The "price leaders" were mostly staples, goods which practically

every housewife bought each week, such as butter, eggs, milk, lard, potatoes, and canned goods. Items offered as leaders generally were priced slightly above cost, but sometimes they were sold below cost. For instance, one item of canned goods which was highly competitive was sometimes sold as a leader at 20% below cost. Nationally advertised brands usually were preferred to other brands for price leaders, because housewives were more familiar with the prices of nationally advertised products and therefore responded more readily to price reductions.

Deliveries from the warehouse to the stores were made weekly by truck. Bread from the company's own bakery was delivered to the stores daily. The few perishable vegetables carried in season and some of the semiperishables were bought from local wholesalers and were delivered periodically as ordered. Occasionally, small fill-in orders were delivered by the district managers, who used light trucks as a means of transportation from store to store. The merchandise was charged to the stores at retail prices, and the store managers did not know the cost prices.

The president of the Lincoln Stores Company was in charge of the purchasing department, in which there were four buyers. The chief lines purchased by one buyer were coffee, tea, butter, cereals, and soap; by another, canned meats, lard, pork, bacon, and syrup; by another, perishables and semiperishables, crackers, and confections; and by the other, sugar, flour, and the general lines of canned goods. Merchandise was bought according to the needs of the company and market conditions. Most of the requirements of canned fruits and vegetables, which were packed in one season of the year, were bought in the winter and spring for delivery in the summer and fall.

The warehouse was in charge of a receiving clerk and a shipping clerk, both of whom were responsible to the president. The stock of merchandise in the warehouse was controlled by a perpetual inventory card system operated in the auditor's office. For each of the 900 items there was a box in which was placed a card for every unit of merchandise received. A unit represented the quantity of the item most convenient for delivery to the stores. For some canned goods, for example, the unit was a case of two dozen cans, while for others the unit was a half-case or a quarter-case.

Records of inventory decreases were made from the weekly

order blanks received from the store managers. For each unit ordered, a unit card was removed from the appropriate box. In order to warn the buyers when the stocks of the various items had reached the minimums that were considered advisable, a "minimum" card was placed in each box to head the number of cards representing the minimum stock desired. For most items, the minimum quantities, which were determined by the buyers, varied from time to time according to seasonal changes in sales. When a minimum card was reached, it was sent to the buyer by the clerk in charge of the cards.

The unit cards for each item were numbered so that at any time the number of units in stock could be determined by looking at the front card in the box. Physical inventories of warehouse stocks had been taken once every six months since the introduction of the perpetual inventory system in 1923; the stock on hand as shown by the cards varied from the actual count by an average of about 1/10 of 1%.

When the perpetual inventory cards had been adjusted for an order, the order was typed in triplicate; one copy was for the shipping clerk, one for the auditing office, and one for delivery to the store manager with the merchandise. Upon delivery, the store manager checked the goods with the copy of the order and signed a receipt slip declaring that the merchandise was as ordered or was at variance as stated. He gave the original receipt slip to the truck driver who delivered the merchandise, and he gave the carbon copy to the district manager with the itemized copy of the order for his store.

Physical inventories were taken in the stores at least once every two months by two men employed especially for the task. Between inventories, weekly reports were made to the officers of the company showing changes in the ledger accounts of each store. The most important control information, however, was provided by comparison sheets which were compiled weekly and showed sales of the current week as compared with the weekly sales of several preceding years.

In the fall of 1925, the executive of the Lincoln Stores Company contemplated replacing the Monico canned goods by goods sold under the nationally advertised Gardner trade-mark. The Monico brand had been introduced in the city and the surrounding territory by the Lincoln Stores Company in 1920. During

the five years preceding 1920 the company had carried canned fruits of several packers whose brands were advertised not at all nationally and but little locally. The Monico brand had been selected in 1920 chiefly because the Gardner Products Company,[2] which packed that brand as well as the Gardner brand, offered the Lincoln Stores Company an exclusive agency for the Monico brand. As further inducement to the chain store company to carry that brand, the packer gave the company, as an advertising allowance, 10 cents for each case of 24 cans purchased. The Gardner Products Company was able to make this allowance at least partly because it did not advertise the Monico brand.

The Monico canned fruits were uniformly of the "fine" grade, the highest grade packed, and were equal in quality and flavor to the nationally advertised Gardner fruits. Although the Gardner fruits were familiar to consumers in its territory and although the terms of the exclusive agency did not prevent the Lincoln Stores Company from carrying both brands, the company had decided in 1920 not to carry the nationally advertised product because of the keen competition among retailers in the sale of that line. The Gardner line was carried by nearly all the unit grocery stores in the city and also by the two other chain store grocery companies, one of which was larger and the other smaller than the Lincoln Stores Company. The Lincoln Stores Company carried no canned fruits in competition with the Monico brand, either in the same grade or in lower grades. Some of the more uncommon fruits were not packed in that brand. Those the company carried in other brands, but its sales of them amounted to less than 5% of total sales.

The Monico fruits had been pushed vigorously by the store managers of the Lincoln Stores Company; the appeal used most frequently was "they are the finest packed," or "there are none better." Cans of the fruits were displayed prominently in the windows and were advertised in the daily newspapers after 1923, when the company first used that type of advertising. By 1925 the president of the Lincoln Stores Company concluded that the stores' customers were educated to the use of the Monico brand; many were asking for that brand and most other customers accepted it readily when it was offered as a substitute.[3]

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[2] Fictitious name.

[3] See Truro & Company, 3 H.B.R. 210, and also Milburton Brothers, 3 H.B.R. 214.

The company's sales of canned fruits amounted to approximately \$220,000 in 1924, or 2.4% of total net sales. This volume represented a gradual increase from 1920, when the volume had been 2.1% of net sales. The increase had been deemed satisfactory until the president learned that in another city several chain store companies which handled the Gardner brand were selling relatively more canned fruit than was being sold in the Lincoln stores. The city in which those stores were located was in the same section of the United States as was the city in which the Lincoln stores were operated and was considerably larger than that city. The store managers of the Lincoln Stores Company stated that they had not observed an increase in the demand for the Gardner brand, but the record of the other companies led the president to conclude that sales of canned fruits in his stores should be 3.25% of total sales. He was of the opinion that the principal cause for the large and growing sales of the Gardner products was the extensive advertising which the Gardner Products Company had carried on during the preceding three or four years; in 1924 the company spent almost half a million dollars for magazine advertising of Gardner canned fruit, an amount twice as large as the corresponding expenditures in 1920. Another important reason for the growing popularity of the Gardner products, according to the president of the Lincoln Stores Company, was the fact that nearly all chain stores had been offering nationally advertised goods at low prices, frequently using them as price leaders.

The manufacturer's prices and terms of sale to the Lincoln Stores Company were the same for fruit bearing the Gardner trade-mark and for goods bearing the Monico mark, except for the advertising allowance made on the Monico goods. The Lincoln Stores Company's average gross margin on the Monico products had been 25% of net sales; the advertising allowance had not been used in figuring cost of merchandise sold but had been treated as extra profit. On the Gardner fruits the president expected that the company could secure an average gross margin of about 24%, the lower figure resulting from keener competition. The packer's allowance for advertising of the Monico line amounted to about 1.8% of net sales of canned fruits. The Lincoln Stores Company had spent none of this allowance prior to 1923, but in 1923 and in 1924 it had advertised the line at

various times as one of the weekly price leaders. The advertising expense was not allocated to the various lines, but it was estimated that less than half of the allowance for the Monico brand was spent for advertising that brand.

As a general objection to substituting the nationally advertised brand for the Monico brand, the president stated that he disliked losing the benefit of the effort and money which the company had spent in promoting sales of the latter brand. In addition he thought it would be somewhat embarrassing to sell Gardner fruits as "the finest packed" when formerly the stores had sold the Monico goods on the same appeal.

The company, however, decided to purchase the nationally advertised Gardner brand and at the same time to discontinue carrying the Monico brand.

COMMENTARY: This case is concerned with the merits of the purchase by a grocery chain store company of nationally advertised merchandise as against the purchase of nonadvertised goods for which an exclusive agency was granted. Since the quality of the two brands of canned goods around which this case centers was equal, the conclusions are not affected by choice of quality. The problem is entirely one of merchandising.

In the statement of the case, the application of such phrases as "the finest packed" to the Monico brand in the Lincoln Stores Company's advertising was cited as an obstacle to the purchase of the Gardner brand. No weight is to be attached to that point, however, for such superlative phrases are little heeded by consumers and are soon forgotten. One of the reasons advanced for the purchase of the Gardner brand was the information obtained by the president of the Lincoln Stores Company that a chain store company in another city, which sold the Gardner brand, had a higher percentage of sales of canned goods to total sales than the Lincoln Stores Company enjoyed. This evidence is not conclusive and should be given little weight in the decision. Not only is there uncertainty as to possible differences in consumers' requirements and tastes in the different cities, but the Lincoln Stores Company's percentage of sales of canned goods may have been low because of the large volume of sales which it obtained on other goods.

The chief advantages that would have accrued to the Lincoln Stores Company from continuing to carry the Monico brand rather than the Gardner brand were: the absence of direct price competition, since the company had the exclusive agency for the Monico brand, the advertising allowance received from the packer for the Monico brand, and such

goodwill as had been established for that brand. On the other side of the scale were several disadvantages. Extra sales effort was required for selling the less well-known brand. There was a likelihood that sales were being lost to other stores without that fact becoming apparent to the company's store managers, who had no means of ascertaining how many customers who preferred the Gardner brand simply transferred their canned goods patronage elsewhere without remark. It was necessary for the retailer to assume the burden and expense of advertising the Monico brand. There was always the possibility that the packer would decide to sell his entire output under the advertised Gardner brand and discontinue the Monico brand; the Monico brand was not a private brand, since the Lincoln Stores Company had no title to the Monico trade-mark. Finally, the avoidance of direct price competition with the Gardner brand did not permit the Lincoln Stores Company to price Monico goods without reference to the prices of Gardner goods. The two brands were competitive; hence a large differential in prices could not be maintained by the Lincoln Stores Company without adversely affecting its sales of canned goods.

The company's decision to purchase the Gardner brand was well founded, particularly because of the company's lack of full control of the Monico brand and the necessity of meeting competitor's prices on Gardner goods.

The decision to purchase the Gardner brand properly carried with it the decision to discontinue carrying the Monico brand, even at the sacrifice of some goodwill. The two brands were equal in quality, and it was therefore improbable that the aggregate volume of sales for the two brands would be enough greater than the sales of the Gardner brand alone to justify the investment in duplicate stocks and the incurring of duplicate carrying charges. By carrying only the Gardner brand a materially higher rate of stock-turn could be secured than if both brands were carried. The advantages of a high rate of stock-turn are too well known to require elaboration. If the company had continued to carry the Monico brand, moreover, it would have been necessary to advertise that brand against the Gardner brand, a rather profitless procedure.

M. T. C.

January, 1927

Everman Stores Company[1]

CHAIN STORES—GROCERIES

Purchasing—*Centralization of, in Chain Stores.* After five months of operation, the executives of a company operating 29 grocery stores within a radius of 150 miles wished to increase the gross margin for the stores as a whole by adopting a more effective control of purchasing and pricing. For 11 of the stores, which were located in the same city, the district manager acted as purchasing agent and set retail prices on all merchandise except fresh fruits and vegetables, which were purchased and priced by the store managers. In the stores outside this city, each store manager did his own purchasing and pricing. The company contemplated organizing a wholesale company in order to secure the services of a firm of purchasing agents which bought only for wholesalers. It decided, however, not to form a wholesale company, but to centralize the purchasing for all the stores under one purchasing agent and to have all store managers make requisitions for purchases through him.

(1926)

The Everman Stores Company was formed in February, 1926, to purchase and operate 13 grocery stores. By the end of August of that year the company was operating 29 stores within a radius of approximately 150 miles in a state in the Middle West. The company planned to add new stores to the system as rapidly as appeared to be practicable. The executives were favorably known in the state through their successful management of several manufacturing companies, and they anticipated no difficulty in securing funds from banks or through the sale of stock to provide for the expansion of the Everman Stores Company. They intended to rely chiefly upon the sale of preferred stock to customers.

In June, the fifth month of its operation, the Everman Stores Company had total sales amounting to $116,479, a gross margin of approximately 15.5% of sales, and a net profit of about 0.73%. In July, sales were $130,311; the gross margin was 14.05%, and the net profit was 0.61%. Sales in August were $5,000 less than in July, but the gross margin in that month was 17.6%, and the net profit amounted to 3.32%. The percentages of gross margin, of net profit, and of expense for the individual stores varied

[1] Fictitious name.

widely. In July, for instance, one store showed a profit of 13.73% of sales and another store showed a loss of 36.54%; and in August expenses varied from 10.5% of sales in one store to 24.84% in another. The executives were of the opinion that the gross margin for the stores as a whole was less than it should have been and that it might be increased by more effective control of purchasing and pricing.

It was suggested that the company might advisably use the services of a firm of purchasing agents, located in Chicago, which customarily bought only for the accounts of wholesalers but which might be willing to perform the same service for a chain of stores. In previous dealings with this firm, the executives of the Everman Stores Company had found it to be reliable. In reply to an inquiry from the Everman Stores Company, the firm of purchasing agents wrote:

The chain store proposition in the grocery trade has been rather serious. Today about 25% of the grocery business is done by chain stores. There has been an abnormal growth in the past 10 or 15 years, and the general impression is that we have about reached the point of saturation on the chain stores for the time being. Of course, they will grow as the country grows and in some sections where they have not been prevalent there is still room for them. As a rule, chain stores are sold as cheaply as the wholesale grocer, provided they have a warehouse and operate as a wholesaler distributing to their own chain. This is not so commonly the story, however, with chain stores which do not have their warehouse and do not operate a regular wholesale department.

In the grocery business there is a distinct cleavage between several lines, or really two classes of merchandise, namely, the nationally advertised goods and what are called the staples, or goods that are not sold based on national advertisement or demand already created with the consumer. As a rule, there is very little profit in nationally advertised goods, as the price is such that there is a rapid turn-over and no risk, and demand has already been created. The real profit in the grocery business is generally admitted to be in the staples, or goods that can be bought and sold on the market, and this applies to the chain store as well as to the wholesaler. That is the reason why so many jobbers and some chain stores have their own private brands.

We confine our business strictly to the purchasing for the wholesaler, and it has been a problem whether or not to take the chain stores. We have a few clients who are wholesalers and who have since gone into the chain store business. They have a regular wholesale department and warehouse and are recognized as wholesalers by the manufacturers and sellers, and we are able to keep these accounts with-

out criticism. There are others that operate regular warehouses and buy in a wholesale way, distributing from their warehouse to their own stores. These are recognized as wholesalers except by two or three manufacturers of nationally advertised goods.

We do not as a rule handle nationally advertised goods. They are a one-price proposition or based on special arrangements and concessions for advertising allowance, and in some cases the chain stores buy cheaper than the wholesalers because they can render service and push sales. We do not attempt to handle them, nor can we handle them to advantage. Our big business is in staples, which are not confined to any particular brand or nationally advertised label. These are the lines in which the wholesale grocer and also the retail grocer and chain store make the largest profit. In addition to this we issue bulletins keeping our clients posted on the market, advising as to costs and prices, and our offices become branches of our clients to assist them in buying.

We doubt if it would be policy for us to take on the account of a chain store, or to send orders to our connections for shipment or to charge to this concern, on account of the criticism and prejudice, particularly among manufacturers who do not care to sell direct to chain stores without warehouses.

If it is your intention to form a wholesale company, under a different name, to operate a warehouse and buy for these stores, we could probably arrange to take on this account and help you in buying, keep you posted on the market, and aid you in many ways. Our salary for our services would be $50 per month.

The Everman stores were of the self-service type. The merchandise, with prices clearly indicated, was arranged on shelves so that customers could select and remove what they desired. The customers presented the goods which they had selected to a cashier seated in the front of the store, who did any packaging that was necessary and received payment for the goods. All transactions were made for cash. There was a meat market in each store but, except in three instances, the meat markets were operated by independent managements which paid to the stores a certain percentage of the profits from the sale of meats. Three of the stores operated their own meat departments. The stores also sold fresh fruits and vegetables in season. No deliveries were made to customers. One executive had given it as his opinion, however, that the company could double its sales by making deliveries on unit purchases amounting to $5 or more.

Eleven of the 29 Everman stores were located in Altworth, a city of about 150,000 population. Stores numbers 1 and 4 were

located in a town of approximately 25,000 population situated 80 miles from Altworth; stores numbers 3 and 15 were located in a town of about 40,000 population approximately 25 miles from Altworth; and the remaining 14 stores all were located in different towns situated from 35 to 180 miles from Altworth and having populations ranging from 4,000 to 25,000. The towns in which Everman stores were operated were predominantly farming centers, although several had comparatively extensive industrial activities and one was the seat of a state university.

The company maintained a warehouse in Altworth. The Altworth stores were supplied from this warehouse, but a large part of the purchases of the other stores were shipped directly to them by the sellers. The stores outside of Altworth were too widely separated to make practicable the use of trucks for transporting merchandise to them from the warehouse. Eighty-five per cent of the expense of the warehouse was charged to the Altworth stores and 15% was charged to the stores outside of Altworth. These percentages were thought to represent the relative usefulness of the warehouse to the two groups of stores.

In a majority of the stores two men were employed, a store manager and his assistant. These men were paid basic salaries of $100 and $90 per month respectively; in addition, 1% of monthly gross sales and 5% of monthly net profits were distributed between them in the ratio of ¾ and ¼. In a few stores three men were employed.

The Everman stores met keen competition, both from unit stores and from other chain stores. Occasionally, the Everman stores were undersold on certain items by unit stores; in Altworth, where most of the competition from chain stores occurred, prices in Everman stores and in other chain stores were virtually the same. On the whole, prices in Everman stores were somewhat lower than corresponding prices in competing unit stores.

The Everman Stores Company advertised in the newspapers of the towns in which its stores were located. At the top of each advertisement appeared a picture illustrating some advantage of a self-service, chain grocery store, together with a few lines of copy explaining the advantage. The lower part of the advertisement consisted of a list of from 6 to 12 items that were being offered at especially attractive prices, the prices also being given. Originally, numerous items for which no price reductions were

made, as well as those items which were being offered at special prices, had been listed in the advertisements. The company had decided that this was a waste of advertising space and that only those items which were being offered as so-called "specials" should be listed in the advertisements. It had been proposed that all prices be omitted from the advertisements and that, instead of encouraging consumers to purchase specified items, the company should make an effort in its advertisements to give the impression that consumers would be certain to effect savings by trading regularly at Everman stores. The executives were giving this proposal serious consideration. In June, 1926, the advertising expense exceeded 2.25% of sales. In July, it amounted to 2.21% of sales.

Every Saturday and sometimes on other days, the stores offered "specials," that is, merchandise priced below the level at which the goods customarily were sold in the stores. Most of the specials offered represented true mark-downs, usually almost to cost. The specials were used as leaders to bring people into the stores and were featured in the advertisements. The items to be offered as specials in the Altworth stores were selected by the district manager, who was also the purchasing agent for those stores, in consultation with the advertising manager, and were the same for all the stores. In the stores outside of Altworth, selection of specials was left largely to the store managers. The store managers made weekly reports to the central office of the volume of sales at special prices. In June, sales of specials constituted 1.3% of the total sales volume of the stores outside of Altworth and 3.1% of the total sales volume of the Altworth stores. Exhibit 1 shows, by stores, for May and June, special sales in percentages of total net sales.

Each store manager purchased fresh fruits and vegetables for his own store and determined the retail prices at which those items should be sold. For the Altworth stores all the purchasing and pricing of other items was done by the purchasing agent for those stores. Outside of Altworth, however, the store managers not only purchased and priced fresh fruits and vegetables but also did practically all the purchasing and pricing of other items. The general manager of the company received daily from those store managers invoices of goods purchased; on the backs of the invoices the store managers recorded the retail prices at which they had marked the goods. On the basis of this information and

EXHIBIT I

SALES AT SPECIAL PRICES EXPRESSED AS PERCENTAGES OF TOTAL NET SALES OF EVERMAN STORES COMPANY, MAY AND JUNE, 1926

	June	May
Stores outside Altworth:		
Number 1	1.1%	1.0%
2	0.5	0.3
3	0.4	0.3
4	1.2	0.8
5	0.6	0.9
6	0.6	0.7
7	0.6	1.2
8	1.6	0.9
9	1.5	0.7
10	1.2	1.0
11	1.5	1.1
12	0.8	1.3
13	1.0	0.8
14	2.8	1.6
15	3.0	1.4
16	2.0	
Total	1.3%	0.9%
Altworth Stores:		
Number 101	3.0%	5.0%
102	3.0	4.6
103	2.7	4.7
104	3.5	6.0
105	2.8	5.0
106	3.2	5.0
107	3.2	4.8
108	3.0	5.4
109	4.2	6.4
110	3.3	
Total	3.1%	5.2%

semimonthly reports from store managers of gross margins obtained, the general manager made recommendations as to changes in the percentages of gross margin which the various stores were securing. The general manager was of the opinion that the average original mark-up should be approximately 20% of sales and that the gross margin after shrinkage of merchandise and after mark-downs for special sales should be about 15%. In a circular letter which he sent to the store managers he advised them to take not less than a 10% mark-up on the following items: butter, eggs, milk, bread, flour, sugar, coffee, laundry soap, washing powder; and not less than a 30% mark-up on such items as fresh

EXHIBIT 2

PURCHASES AND MARK-UPS, BY STORES, OF EVERMAN STORES COMPANY, JUNE, 1926

	Purchases Valued At Retail Prices		Mark-Up On		Fruits and Vegetable Shrinkage	Net Fruit and Vegetable Mark-Up
	Merchandise	Fruits and Vegetables	Merchandise	Fruits and Vegetables		
Stores outside Altworth:						
Number 1	$ 2,209.45	$ 570.47	20.5%	21.0%	5.4%	15.6%
2	7,173.68	1,293.46	17.4	16.0	2.5	13.5
3	2,609.44	721.67	14.0	19.0	4.2	14.8
4	2,334.40	971.75	18.4	24.6	2.0	22.6
5	3,857.74	1,012.57	15.0	20.0	3.6	16.4
6	4,477.12	1,508.83	16.6	23.0	2.7	20.3
7	4,522.85	1,003.36	15.1	22.5	2.8	19.7
8	3,427.64	1,262.65	16.0	26.0	1.2	24.8
9	1,776.76	656.68	17.0	19.0	5.0	14.0
10	1,154.24	335.37	15.0	21.0	6.0	15.0
11	1,027.03	222.35	14.7	20.0	7.4	12.6
12	3,790.99	558.45	16.4	24.2	4.0	20.2
13	2,895.89	535.94	15.6	26.5	4.2	22.3
14	2,382.72	1,057.77	12.6	23.0	4.0	19.0
15	1,935.52	520.47	15.4	19.0	5.1	13.9
16	5,169.90	584.56	20.7	23.0	2.0	21.0
Total	$50,745.37	$12,816.35	16.2%	21.7%	3.8%	17.9%
Altworth Stores:						
Number 101	$ 5,309.26	$ 980.24	17.3%	20.0%	5.0%	15.0%
102	7,063.60	1,784.70	20.0	19.0	7.3	11.7
103	5,178.74	1,098.72	19.0	17.5	6.7	10.8
104	4,940.56	1,101.92	20.0	21.0	9.0	12.0
105	8,770.56	1,922.68	18.3	18.8	8.0	10.8
106	7,801.49	2,127.16	19.3	19.0	5.5	13.5
107	6,168.60	1,028.41	18.3	20.0	8.6	11.4
108	5,219.91	1,119.72	18.3	20.0	9.0	11.0
109	3,270.94	983.97	20.0	23.0	7.3	15.7
110	5,970.15	643.95	24.0	26.4	4.0	22.4
Total	$ 59,693.81	$12,791.47	19.4%	20.4%	7.0%	13.4%
Grand Total	$110,439.18	$25,607.82				

fruits and vegetables, canned fruits for salads, tea, olive oil, canned shrimp, lobster, and tuna fish, fancy pickles, olives, preserves and jams, ammonia and bluing, matches, extracts, cocoa, candy, powdered sugar, shelled nuts, spices, and packaged figs and dates. Canned fruits and vegetables, the general manager stated, should always have a mark-up of at least 20%.

The company's system of decentralized purchasing had resulted in wide variations in the percentages of gross margin taken by the different stores and also in the gross margins on different items in the same store. The general manager had decided that it was necessary for him to receive reports from the stores twice each month showing the gross margins by items, so that he could prevent extreme variations. He had found instances in which certain store managers were, unintentionally, selling goods at a loss. The purchases and mark-ups for the individual stores for June are shown in Exhibit 2.

Physical inventories were taken monthly by men from the central office. Merchandise was charged to the stores at retail prices; in the case of the stores outside of Altworth, for which the store managers did the purchasing and pricing, the invoices which the store managers sent in daily after entering the retail prices on them were used for inventory purposes. Store managers kept records of spoilage and waste, such as banana stalks, cabbage leaves, and rotten fruit, and this was taken into consideration in arriving at inventory figures. Inventory shortages of less than 1% were permitted. If the shortages in a store exceeded that percentage and no adequate explanation was made, the store manager was dismissed from the company's employ.

The Everman Stores Company had not undertaken to develop any private brands. A large part of the goods which it sold bore manufacturers' trade-marks, and many of the items were nationally advertised; the remainder carried wholesalers' private brands or were unbranded. Some of the wholesalers' private brands and manufacturers' brands, although not advertised nationally, were well known in the state in which the Everman stores were located. The general manager pointed out that the successful introduction of a private brand required extensive advertising and that it might be difficult for the company always to obtain a high and uniform grade of merchandise for private brands. Customers, moreover, frequently demanded nationally advertised merchandise. The

general manager favored a policy of buying widely advertised brands of goods directly from the manufacturers whenever possible. In June, more than half the purchases for the Altworth stores, he estimated, were made directly from the manufacturers at the same prices and upon the same terms that were granted wholesalers. The general manager recognized a need for more centralized control of buying for the stores outside of Altworth.

In the opinion of several executives, it was possible that if the Everman Stores Company organized a wholesale company, as suggested by the firm of purchasing agents, and accepted the services of that firm in buying private brand and unbranded merchandise, the gross margin percentages obtained by the stores would be improved. If a wholesale company were organized, it probably would be located in Altworth. This would make it possible for the Everman Stores Company to dispense with the Altworth warehouse, since all the purchases of the stores could be made from the wholesale company and all goods shipped directly from that company to the stores. The executives had not made an estimate of the cost of organizing and operating a wholesale company.

Eighteen of the 29 stores in July showed an operating loss. Store number 2 had sales larger than those of any other store and also a larger profit in dollars. Its profit, in fact, was several hundred dollars larger than the profit for all the stores after deduction of the losses of the 18 unprofitable stores. Store number 2 was one of the oldest stores in the chain and its success was ascribed chiefly to the work of the store manager. Store number 12, which was located the farthest from Altworth, showed a profit equal to 3.38% of its sales for the month. It seemed significant that 9 of the 11 Altworth stores operated at a loss during July. Those stores, since they were concentrated in one city and were closely supervised, might have been expected to show better results than the stores outside of Altworth. The Altworth stores, moreover, had larger sales in most instances than did the other stores.

For the month of August the company showed a net profit of $4,170.97, which was almost half the total net profit for the 7 months that the company had been in operation. In that month 12 of the stores showed a loss; in the previous month, 18 had shown a loss and for the entire 7 months 15 showed a loss. All

but 2 of the Altworth stores operated at a profit in August, although 9 had shown a loss in July. These better results were shown in August in spite of the fact that expenses in that month amounted to 14.32% of sales as compared with 13.44% in July. Cost of goods sold in August, however, amounted to 82.36% of sales, whereas in July that cost represented 85.95% of sales. Sales of goods offered at reduced prices were 2.1% of total sales in August, compared with 2.4% in July.

Of the stores outside of Altworth, store number 12, which was the farthest from Altworth, had the largest net profit in August, 11.85% of sales. Store number 2, of those outside Altworth, had the largest volume of sales in the month, $8,000, and the smallest expense percentage, 10.5%. Cost of goods sold for that store, however, amounted to 82.35% of sales, as compared with 74.95% for store number 12, and net profit was only 7.15% of sales. The heaviest loss was experienced by store number 16, in which cost of goods sold actually amounted to 104.59% of sales. With one exception, all the stores which had a gross margin of less than 15% in August showed a net loss, whereas all those which had a gross margin of 20% or more showed a net profit. All those stores which had expenses amounting to 19% or more of sales showed a loss.

The executives of the Everman Stores Company decided not to organize a wholesale company, for the time being at least, but to centralize purchasing for all the stores. The purchasing agent's headquarters were in Altworth, and all the store managers made requisitions for purchases through him. By September, approximately one-half of the merchandise required by the stores outside of Altworth was being shipped by freight from the Altworth warehouse.

The amount spent for advertising also was reduced. In August, for instance, the advertising expense was $2,550, whereas in July it had been $2,850. The executives were of the opinion that the reduction in advertising expense would have no effect upon sales. The company obtained some publicity through the sale of preferred stock to actual and potential customers in the territories in which the stores were located.

Operating results for the seven months ending August 31 are shown in Exhibits 3 and 4.

Exhibit 3

Profit and Loss Summary for Everman Stores Company for Seven Months Ending August 31, 1926

	Sales	Cost of Goods Sold		Expenses		Net Profit	
	Amount	Amount	Percentage of Store's Sales	Amount	Percentage of Store's Sales	Amount	Percentage of Store's Sales
Stores outside Altworth:							
Number 1	$ 22,937.29	$ 19,868.64	86.62%	$ 4,252.09	18.54%	$1,183.44‡	5.16%‡
2	54,470.09	44,982.84	82.58	5,136.73	9.43	4,350.52	7.99
3	13,866.41	12,208.24	88.04	2,410.16	17.38	751.99‡	5.42‡
4	20,883.57	17,243.91	82.57	3,490.77	16.72	148.89	.71
5	24,205.92	20,216.36	83.52	3,186.19	13.16	803.37	3.32
6	37,548.47	31,150.74	82.96	4,872.39	12.98	1,525.34	4.06
7	32,898.88	27,241.99	82.81	3,597.77	10.94	2,059.12	6.26
8	28,547.70	24,187.08	84.73	3,207.88	11.24	1,152.74	4.04
9	13,654.71	12,153.51	89.01	2,673.19	19.58	1,171.99‡	8.58‡
10	9,472.13	8,073.43	85.23	2,121.55	22.40	722.85‡	7.63‡
11	9,819.07	8,452.54	86.08	2,224.81	22.66	858.28‡	8.74‡
12	22,450.38	19,118.45	85.16	3,111.14	13.86	220.79	.98
13	19,740.87	17,599.51	89.15	2,576.81	13.05	435.45‡	2.20‡
14	24,167.49	20,928.13	86.60	3,353.45	13.88	114.09‡	.47‡
15	8,755.16	8,127.09	92.83	1,811.58	20.69	1,183.51‡	13.51‡
15 Meat Market	2,926.49	2,324.69	79.44	503.50	17.20	98.30	3.36
16*	9,505.98	9,007.65	94.76	1,739.73	18.30	1,241.40‡	13.06‡
16 Meat Market*	3,999.16	2,774.10	69.37	812.95	20.33	412.11	10.30
17†	3,684.07	3,358.88	91.17	1,061.38	28.81	736.19‡	19.98‡
18†	2,631.28	2,348.64	89.26	618.44	23.50	335.80‡	12.76‡
Altworth Stores:							
Number 101	23,853.81	21,236.89	89.03	2,751.97	11.54	135.05‡	.57‡
102	37,464.99	31,966.90	85.32	4,735.66	12.64	762.43	2.04
103	28,643.15	24,445.69	85.35	3,158.14	11.03	1,039.32	3.63
104	24,235.40	21,075.85	86.96	3,563.20	14.70.	403.65‡	1.67‡
105	45,171.50	39,204.25	86.79	4,327.35	9.58	1,639.90	3.63
106	39,149.79	32,757.73	83.67	3,930.94	10.04	2,461.12	6.29
106 Meat Market	2,511.37	2,125.26	84.62	346.45	13.80	39.66	1.58
107	30,212.69	25,981.86	86.00	3,205.65	10.61	1,025.18	3.39
108	27,369.13	23,340.14	85.28	3,804.32	13.90	224.67	.82
109	12,565.06	11,154.73	88.78	1,722.68	13.71	312.35‡	2.49‡
110*	11,693.29	9,928.79	84.91	1,303.99	11.15	460.51	3.94
111†	4,263.27	3,732.66	87.55	728.21	17.08	197.60‡	4.64‡
Total	$653,298.57	$558,317.17	85.47%	$86,341.07	13.22%	$8,640.33	1.32%

*Began operation June 1, 1926. †Began operation July 1, 1926. ‡Loss.

Exhibit 4

Detail of Expenses for Everman Stores Company for Seven Months Ending August 31, 1926

Expenses*	1	2	3	4	5	6	7	8	9	10	11
Salaries and wages—Stores	$1,790.72	$2,323.26	$ 972.94	$1,355.22	$1,436.50	$1,810.84	$1,667.23	$1,539.44	$1,124.37	$ 998.95	$ 907.97
Salaries and wages—Overhead	193.08	447.40	109.49	171.45	193.08	307.74	156.19	242.53	108.02	72.05	80.28
Traveling expenses	9.95	25.02	6.73	9.12	11.21	17.57	15.37	12.95	6.52	4.51	4.41
Buying expenses	3.47	7.22	1.68	3.48	3.26	4.91	4.35	3.67	1.84	1.41	1.18
Supervision expenses	36.04	73.92	17.48	36.09	33.25	51.52	44.48	37.37	38.81	29.70	12.20
Bonus—Manager	88.96	490.76	68.53	144.91	171.19	262.72	269.65	138.16	78.18	45.59	60.59
Insurance	18.80	49.59	21.58	4.09	4.53	7.07	6.13	25.11	19.37	1.85	1.74
Taxes	36.19	60.62	47.39	35.49	61.25	48.23	37.10	37.94	46.34	39.55	39.62
Rent	1,426.38	748.71	668.64	1,162.48	715.34	1,493.97	643.87	495.55	668.05	546.53	738.95
Telephone and telegrams	21.23	23.55	23.86	15.07	18.23	24.38	24.28	19.86	13.50	13.32	15.44
Light, heat, and water	176.55	218.28	86.78	94.72	99.52	243.19	166.56	99.60	128.26	76.81	103.97
Ice	44.80	32.60	27.00	48.60	40.00	65.00	60.00	46.75	45.60	31.05	29.75
Bags, paper, twine, etc.	23.61	94.28	42.91	48.57	8.39	32.10	51.96	47.47	34.77	34.28	15.51
Postage, printing, and stationery	46.76	52.83	38.97	44.08	45.42	49.11	41.31	76.67	40.39	41.60	40.87
Office supplies and expenses	25.03	57.56	24.43	21.42	23.75	39.31	36.13	35.08	16.15	8.49	11.09
Transportation expenses	18.51	42.48	11.71	16.21	18.68	28.76	40.69	23.05	10.16	7.05	7.89
Delivery service	....	....	....	....	....	....	....	....	....	....	....
Miscellaneous expenses	292.01	388.65	240.04	279.77	302.59	385.97	332.47	326.68	292.86	168.81	153.35
Total	$4,252.09	$5,136.73	$2,410.16	$3,490.77	$3,186.19	$4,872.39	$3,597.77	$3,207.88	$2,673.19	$2,121.55	$2,224.81

*Advertising expense until October, 1926, was to be charged to prepayments. Beginning in October, a specified portion of the cost of advertising was to be charged to expense each month and credited to prepayments.

EXHIBIT 4 (*Continued*)

DETAIL OF EXPENSES FOR EVERMAN STORES COMPANY FOR SEVEN MONTHS ENDING AUGUST 31, 1926

Expenses*	12	13	14	15	15 (Meat Market)	16†	16 (Meat Market)†	17‡	18‡	101	102
Salaries and wages—Stores	$1,429.75	$1,169.24	$1,474.23	$ 832.12	$ 247.50	$ 531.93	$ 413.33	$ 390.11	$ 287.55	$ 995.90	$1,431.60
Salaries and wages—Overhead	181.52	158.74	187.28	42.84	13.25	56.54	25.87	24.23	18.25	444.49	696.57
Traveling expenses	10.19	9.15	10.43	1.14	.35	1.58	.73	.31	.32	4.46	6.78
Buying expenses	3.52	2.29	2.94	2.52	.77	3.04	1.38	2.64	1.67	14.56	23.07
Supervision expenses	36.46	48.34	24.97	26.18	8.01	31.54	14.34	55.21	35.05	27.14	41.25
Bonus—Manager	161.38	79.77	183.47	27.50	....	70.49	....	7.72	7.41	....	....
Insurance	4.32	3.51	44.95	1.47	.46	3.47	.88	.86	.73	18.92	59.99
Taxes	50.89	40.11	90.48	....	....	....	....	....	....	75.00	75.00
Rent	770.21	552.79	672.23	470.53	62.25	734.68	207.72	412.93	88.35	567.25	1,423.33
Telephone and telegrams	12.20	11.76	19.31	18.92	1.33	17.35	2.63	9.72	9.32	25.94	33.13
Light, heat, and water	85.94	57.93	113.53	91.05	.12	26.49	.20	.38	3.82	148.89	216.06
Ice	30.00	36.00	35.21	23.10	83.99	40.00	60.00	18.00	30.00	28.00	32.50
Bags, paper, twine, etc.	16.31	59.25	1.99	46.53	18.31	49.81	25.89	67.21	44.46	120.84	206.60
Postage, printing, and stationery	47.92	39.36	42.68	20.96	6.31	17.67	6.55	5.05	8.90	37.23	45.76
Office supplies and expenses	23.80	20.12	16.50	5.14	.16	8.52	2.47	1.14	.15	19.04	30.67
Transportation expenses	17.51	15.79	20.48	4.56	1.40	5.60	2.55	4.30	2.78	34.34	53.03
Delivery service	....	....	87.50	80.00	....	....	....	....	....	....	....
Miscellaneous expenses	229.22	272.66	325.27	117.02	59.29	141.02	48.41	61.57	79.68	189.97	360.32
Total	$3,111.14	$2,576.81	$3,353.45	$1,811.58	$ 503.50	$1,739.73	$ 812.95	$1,061.38	$ 618.44	$2,751.97	$4,735.66

*Advertising expense until October, 1926, was to be charged to prepayments. Beginning in October, a specified portion of the cost of advertising was to be charged to expense each month and credited to prepayments.

†Began operation June 1, 1926. ‡Began operation July 1, 1926.

Exhibit 4 *(Continued)*

Detail of Expenses for Everman Stores Company for Seven Months Ending August 31, 1926

Expenses*	103	104	105	106	106 (Meat Market)	107	108	109	110†	111‡	Total
Salaries and wages—Stores	$1,275.65	$1,008.45	$1,564.05	$1,169.85	$ 247.34	$ 998.10	$1,030.43	$ 692.00	$ 520.00	$ 303.90	$33,940.47
Salaries and wages—Overhead	530.51	448.54	841.24	728.95	21.14	560.92	507.04	237.87	228.93	83.00	8,119.03
Traveling expenses	4.94	3.70	8.89	7.01	....	5.53	4.52	2.98	4.11	2.34	112.50
Buying expenses	17.77	15.21	27.47	24.04	1.81	18.58	17.02	7.31	6.05	1.97	332.42
Supervision expenses	30.05	22.50	54.05	42.65	....	33.64	27.48	18.14	25.00	14.13	1,026.99
Bonus—Manager	....	....	....	....	....	....	....	....	....	....	2,356.98
Insurance	27.37	52.63	23.30	34.87	.61	20.93	40.21	25.20	4.77	1.70	531.01
Taxes	75.00	75.00	75.00	75.00	....	75.00	75.00	....	....	....	1,271.20
Rent	627.17	1,311.72	998.48	1,043.46	24.37	861.83	1,211.68	286.42	247.48	122.00	22,005.40
Telephone and telegrams	27.38	24.18	42.41	34.30	....	28.99	26.40	21.22	21.35	16.19	616.75
Light, heat, and water	137.91	157.62	218.20	190.61	11.48	149.62	335.68	76.15	39.37	3.03	3,558.32
Ice	27.00	33.50	36.00	51.75	....	34.00	54.00	27.00	28.00	27.00	1,206.20
Bags, paper, twine, etc	85.69	100.68	85.23	172.07	11.04	117.33	114.72	95.11	59.25	61.39	1,993.56
Postage, printing, and stationery	39.22	37.36	45.29	42.59	1.47	38.71	38.13	25.65	19.24	8.92	1,092.98
Office supplies and expenses	24.79	19.35	35.41	31.11	2.20	24.08	22.47	9.72	8.27	3.28	606.83
Transportation expenses	39.58	32.35	65.90	55.56	1.82	42.75	37.38	20.37	23.62	10.35	717.21
Delivery service	....	....	....	....	....	....	....	....	....	....	167.50
Miscellaneous expenses	188.11	220.41	206.38	227.12	23.17	195.64	262.16	177.54	68.55	69.01	6,685.72
Total	$3,158.14	$3,563.20	$4,327.35	$3,930.94	$ 346.45	$3,205.65	$3,804.32	$1,722.68	$1,303.99	$ 728.21	$86,341.07

*Advertising expense until October, 1926, was to be charged to prepayments. Beginning in October, a specified portion of the cost of advertising was to be charged to expense each month and credited to prepayments.

†Began operation June 1, 1926. ‡Began operation July 1, 1926.

Commentary: This case presents several significant problems in the organization and control of chain store companies. The first question relates to the utilizing of the services of the Chicago firm as purchasing agents. That firm in its letter pointed out that the chain store company could buy manufacturers' advertised brands more advantageously otherwise than through the purchasing agents. It then proceeded to state that "the real profit in the grocery business is generally admitted to be in staples, or goods that can be bought and sold on the market." That implied that the profits were to be made from speculative buying. While the doctrine thus stated has wide currency, there are good reasons for attributing some of the unsatisfactory conditions in the grocery trade to such speculation. This is not the place, however, to enter into a discussion of speculative buying in the wholesale grocery trade. It is sufficient to point out that chain store companies are properly merchandise distributors rather than merchandise speculators, and that the Everman Stores Company acted wisely in deciding not to employ the services of the firm of purchasing agents for the purposes suggested.

It was essential for the company to centralize the purchasing for all stores and to have centralized control of selling prices. This is the second point of significance in the case. With stores scattered over a wide territory, centralized control of purchases and prices was certain to encounter some obstacles. It is significant, however, that in June, 1926, for which data were presented in Exhibit 2, the rate of mark-up on merchandise in stores outside Altworth, not subject to centralized control, was less than the rate of mark-up on merchandise in stores subject to centralized control in Altworth. The purchasing and pricing of fruits and vegetables in the stores in Altworth, moreover, was not under centralized control, and on those goods the rate of mark-up was less than the mark-up on other merchandise in the same stores. This reflects the inevitable tendency for store managers, when given a free hand, to keep prices down in an effort to stimulate sales, even at a sacrifice of profits.

The third point in this case relates to expense analysis. One of the advantages which accrues to the chain store type of organization is the opportunity that such organization affords for comparing the results shown by the various branches in order to establish standards of performance. The Everman Stores Company had a detailed classification of expenses by stores. The company apparently had not, however, computed expense ratios for analysis and the establishment of standards. From the expense data in Exhibit 4 the ratios for expenses by stores have been computed for the purpose of illustrating this point. The ratios are given in Exhibit 5.

EXHIBIT 5

RATIO OF EXPENSES TO NET SALES FOR EVERMAN STORES COMPANY FOR SEVEN MONTHS ENDING AUGUST 31, 1926

Expenses	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15 Meat market	16
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Salaries and wages—Stores	7.81	4.26	7.02	6.49	5.94	4.82	5.07	5.39	8.23	10.55	9.25	6.37	5.92	6.10	9.50	8.46	5.60
Salaries and wages—Overhead	.84	.82	.79	.82	.80	.82	.47	.85	.79	.76	.82	.81	.81	.77	.49	.45	.60
Traveling expenses	.04	.05	.05	.04	.05	.05	.05	.05	.05	.05	.04	.05	.05	.04	.01	.01	.02
Buying expenses	.02	.01	.01	.02	.01	.01	.01	.01	.01	.02	.01	.02	.01	.01	.03	.03	.03
Supervision expenses	.16	.14	.13	.17	.14	.14	.14	.15	.29	.31	.12	.16	.24	.10	.30	.27	.33
Bonus—Manager	.39	.90	.49	.70	.71	.70	.82	.48	.57	.48	.62	.72	.41	.76	.32	....	.74
Insurance	.08	.09	.16	.02	.02	.02	.02	.09	.14	.02	.02	.02	.02	.19	.01	.02	.04
Taxes	.16	.11	.34	.17	.25	.13	.11	.13	.34	.42	.40	.23	.20	.37	....	....	....
Rent	6.22	1.38	4.82	5.57	2.94	3.98	1.96	1.74	4.89	5.77	7.53	3.43	2.80	2.78	5.38	2.13	7.73
Telephone and telegrams	.09	.04	.17	.07	.07	.06	.07	.07	.10	.14	.16	.10	.06	.08	.22	.05	.18
Light, heat, and water	.77	.40	.63	.45	.41	.65	.51	.35	.94	.81	1.06	3.8	.29	.47	1.04	....	.28
Ice	.20	.06	.19	.23	.17	.17	.18	.16	.33	.33	.30	.13	.18	.15	.26	2.87	.42
Bags, paper, twine, etc.	.10	.17	.31	.23	.03	.09	.16	.17	.26	.36	.16	.08	.30	.01	.53	.63	.52
Postage, printing and stationery	.20	.10	.28	.21	.19	.13	.13	.27	.30	.44	.42	.21	.20	.18	.24	.21	.18
Office supplies and expenses	.11	.11	.18	.10	.10	.10	.11	.12	.12	.09	.11	.11	.10	.07	.06	.01	.09
Transportation expenses	.08	.08	.08	.08	.08	.08	.12	.08	.07	.07	.08	.08	.08	.08	.05	.05	.06
Delivery service	....	....	....	....	....	....	....	....	....	....	....	....	....	.36	.91	....	....
Miscellaneous expenses	1.27	.71	1.73	1.34	1.25	1.03	1.01	1.15	2.15	1.78	1.56	1.02	1.38	1.35	1.34	2.03	1.48
Total	18.54	9.43	17.38	16.72	13.16	12.98	10.94	11.24	19.58	22.40	22.66	13.86	13.05	13.88	20.69	17.20	18.30

Exhibit 5 *(Continued)*

Ratio of Expenses to Net Sales for Everman Stores Company for Seven Months Ending August 31, 1926

Expenses	16 Meat market	17	18	101	102	103	104	105	106	106 Meat market	107	108	109	110	111	Total
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Salaries and wages—Stores	10.33	10.59	10.93	4.17	3.82	4.45	4.16	3.46	2.99	9.85	3.30	3.76	5.51	4.45	7.13	5.20
Salaries and wages—Overhead	.65	.66	.69	1.86	1.86	1.85	1.85	1.86	1.86	.84	1.86	1.85	1.89	1.96	1.95	1.24
Traveling expenses	.02	.01	.01	.06	.06	.06	.06	.06	.06	.07	.06	.06	.06	.05	.05	.05
Buying expenses	.04	.07	.06	.02	.02	.02	.02	.02	.02	....	.02	.02	.02	.04	.05	.02
Supervision expenses	.36	1.50	1.33	.11	.11	.10	.09	.12	.11	....	.11	.10	.15	.21	.33	.16
Bonus—Manager	....	.21	.28	....	....	....	....	....	....	....	....	....	....	....	....	.36
Insurance	.02	.02	.03	.08	.16	.10	.22	.05	.09	.03	.07	.15	.20	.04	.04	.08
Taxes	....	....	....	.32	.20	.26	.31	.17	.19	....	.25	.27	....	....	....	.19
Rent	5.19	11.21	3.36	2.38	3.80	2.19	5.41	2.21	2.66	.97	2.85	4.43	2.28	2.12	2.86	3.37
Telephone and telegrams	.07	.26	.35	.11	.09	.10	.10	.09	.09	....	.09	.10	.17	.18	.38	.09
Light, heat, and water	.01	.01	.14	.62	.58	.48	.65	.48	.49	.46	.50	1.23	.61	.34	.07	.55
Ice	1.50	.49	1.14	.12	.09	.09	.14	.08	.13	....	.11	.20	.21	.24	.63	.18
Bags, paper, twine, etc.	.65	1.82	1.69	.51	.55	.30	.42	.19	.44	.44	.39	.42	.76	.50	1.44	.31
Postage, printing, and stationery	.16	.14	.34	.16	.12	.14	.15	.10	.11	.06	.13	.14	.20	.16	.21	.17
Office supplies and expenses	.06	.03	.01	.08	.08	.09	.08	.08	.08	.09	.08	.08	.08	.07	.08	.09
Transportation expenses	.06	.12	.11	.14	.14	.14	.13	.15	.14	.07	.14	.13	.16	.20	.24	.11
Delivery service	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03
Miscellaneous expenses	1.21	1.67	3.03	.80	.96	.66	.91	.46	.58	.92	.65	.96	1.41	.59	1.62	1.02
Total	20.33	28.81	23.50	11.54	12.64	11.03	14.70	9.58	10.04	13.80	10.61	13.90	13.71	11.15	17.08	13.22

It is to be noted that store salaries and wages ranged from 2.99% of net sales (Store 106) to 10.93% (Store 18). When these data for store salaries and wages are classified, the following results are shown:

Salaries and Wages

Percentage of Net Sales	Number of Stores
2%— 2.99%	1
3 — 3.99	4
4 — 4.99	6
5 — 5.99	6
6 — 6.99	3
7 — 7.99	3
8 — 8.99	2
9 — 9.99	3
10 —10.99	4
	32

Over one-half the stores had a ratio for store salaries of less than 6%. The arithmetical average for all stores was 5.2%. Hence it appears that 6% could have been adopted as a tentative maximum standard, with expectation of reducing the ratio eventually to an even lower figure as sales increased in volume. This analysis indicates which stores were out of line in this item; they deserved individual consideration, to ascertain the precise causes for the abnormally high ratios.

Similar comparisons bring out significant points on the other items of expense. Take rent, for example, which ranged in the grocery stores from 1.38% to 11.21%. The expense for ice in the grocery stores generally was less than 0.2%, but in Store 111 it was 0.63% and in Store 18, 1.14%. That comparison places the question marks. These examples suffice to show the method of using such ratios for expense analysis and for the establishment of normal standards.

This case, finally, shows some of the difficulties of operating a chain store company with branches located in widely scattered communities. It is desirable to meet local conditions in each community, and yet it is dangerous to grant a large range of discretion to the chain store managers. It is difficult, furthermore, to exercise close supervision over the scattered stores. The Everman Stores Company very likely would be able to surmount these obstacles, but in the grocery trade it was not in as favorable a position as a chain store company operating within a compact area.

February, 1927 M. T. C.

TARPON COMPANY[1]

MANUFACTURER—HOUSEHOLD PRODUCTS

ACCOUNTING—*Centralized Preparation of Sales Records.* The controller of a company which manufactured a group of products in general household use throughout the United States proposed that, in addition to the quarterly profit and loss statement which he prepared for the company as a whole, he be allowed to prepare a statement for each sales district. This proposal was in line with his conviction that all reports of sales and sales expenses, even those used solely by the sales manager for control purposes, should be prepared by his division instead of by the general sales office as they then were. The directors refused the controller's request on the grounds that the work of preparing reports of sales and sales expenses by districts was being satisfactorily performed by the sales department and that those reports in connection with the controller's profit and loss statement for the company as a whole gave the general officers and directors adequate information.

ACCOUNTING—*Methods of Expense Distribution in Profit and Loss Statements.* A company manufacturing a group of products in general household use appointed a controller to develop reports which would show to the general officers and directors the significant results of the company's operations. In developing a profit and loss statement for this purpose the controller decided to charge all expenses either to the manufacturing operations or to the sales operations of the company; administrative expenses were divided between those two groups. All the records used by the sales manager in controlling sales activities were prepared in the sales department, and the controller undertook, in developing the selling expense section of the profit and loss statement, to follow in so far as possible the expense classifications used by the sales department.

SALES PLANNING—*Unit of Measurement in Sales Analyses.* The general sales manager of a company which manufactured a group of package products in general household use throughout the United States was convinced that neither figures for sales in dollars nor for sales in cases provided a satisfactory basis for comparing sales results or for setting salesmen's sales quotas; some of the products were subject to price fluctuations, and the packages used varied in size. The general sales manager decided that for purposes of sales control the number of cases sold of each product should be expressed in terms of a specified product, which was packed in cases containing 96 packages, and weighted in accordance with the normal price relationship between the product sold and that specified.

(1919-1926)

[1] Fictitious name.

The Tarpon Company manufactured and sold nationally to wholesale and retail grocers a group of products which were in general household use. In 1919 the company appointed a controller to coordinate the accounting activities of the organization with a view to preparing reports for executives which would show the significant results of the company's operations.

Factory costs and expenses had been compiled separately for the two divisions into which the company grouped its products; those so-called product group departments occupied separate buildings and used different raw materials. No difficulty had been experienced in accumulating separate factory cost data for the two departments, and it seemed desirable that at least an estimated profit and loss statement should be compiled for each. The general officers and the directors of the company desired a formal profit and loss statement in consolidated form only, but they wished information to be available which would permit analysis of the results of either of the product group departments. No expense budgets were maintained, either for any particular department or for the company as a whole, and it was not proposed that such budgets should be established.

For some years the general sales manager had maintained territorial sales and expense records which in his opinion formed a satisfactory basis for control of individual sales districts. Those records were compiled from reports which passed through the sales department for approval prior to being sent to the accounting department for recording on the general books. No reports of sales activities were prepared regularly by the accounting department.

It was necessary for the controller to develop a classification of selling expense accounts for the profit and loss statement of the business as a whole in order to facilitate general control by the officers and directors. It also was necessary to decide, in accordance with the profit and loss statement classification, what prorations of expenses should be made to the product group departments to permit detailed analysis of the profits or losses obtained by each department. Inasmuch as the general sales manager already had developed his own records of sales and selling expenses, two of the major problems faced in developing the control division were the extent to which the expense classifications used by the sales department should be followed by

the accounting department and the extent to which records prepared by the control division should duplicate or replace the sales records already maintained in the general sales office.

Not only the sales activities of the company but also the advertising and other sales promotion activities were under the direct supervision of the general sales manager, who was responsible to the general manager and the board of directors. The general sales manager was aided by an assistant general sales manager, an advertising manager, and 20 district sales managers. Under the supervision of the general sales manager, the advertising manager had complete charge of the administration of the advertising and sales promotion policies of the company. Each district sales manager had direct charge of a group of salesmen in his district and general supervision over canvassers, window trimmers, and demonstrators, who assisted the salesmen in promoting sales. The company employed about 250 salesmen.

District sales managers were expected not only to supervise the selling and clerical activities of their districts but also to call in person on the more important wholesalers and chain-store buyers in their districts. The district sales managers hired their own salesmen, the number of salesmen permitted in each district depending upon the population of the district. Company regulations specified the number of sales assistants which could be allotted to each salesman; in general, the hiring of such assistants was left to the judgment of the salesmen.

No separation was made in the sales organization either for the individual products or for the two groups of products; each salesman sold the full line of articles manufactured by the company. The general sales manager, therefore, did not wish to have sales control information classified separately for the product group departments. He deemed it important, however, that the information should be classified by sales districts, in order that comparisons might be made between the results of the several districts and that each district sales manager could be held responsible for results in his own district.

The sales policy of the company provided for distribution through wholesale grocers, rather than directly to retailers, in the southern and western sections of the United States, where retail grocery stores were comparatively scattered. In the North, however, a number of cities were known as "direct selling points,"

and in those cities Tarpon salesmen sold directly to retail grocers. In direct selling cities the bulk of the company's sales were made directly to retailers, although in each city some sales were made to wholesalers who supplied either the small metropolitan retail stores or stores located in suburbs; in direct selling cities Tarpon salesmen accepted no orders from retailers to be turned over to wholesalers. In the southern states, where the company did not sell directly to retailers, Tarpon salesmen regularly solicited orders from retailers for the accounts of wholesalers. In a number of cities throughout the United States extensive sales were made to chain store companies. In direct selling points each salesman had a territory in which he solicited orders from retailers, while in non-direct selling territories each salesman had a list of retailers among whom he did missionary work and a list of wholesalers from whom he solicited orders.

At its direct selling points, the company would accept an order for five cases or more from any retailer, provided he had paid for the last shipment made to him, even if his account was not due, or was a new customer who had not made a previous purchase from the company. If a retailer required less than five cases of Tarpon products on one order, he was expected to buy from a wholesaler. The company's prices to retailers were 15 cents per 96-package case above the regular prices to wholesalers, and the credit terms to retailers were 2% 10 days, net 30 days. At the direct selling points the company maintained a staff of workers to make collections from the retailers to whom the company had sold directly. The company's policy of refusing to sell to retailers until they had paid for their previous purchases made it essential for the collectors and the salesmen to maintain close contacts and for the collectors to be under the general supervision of the district sales managers. The controller rather than the district sales managers, however, exercised final authority over the district credit offices. In direct selling cities the company made free deliveries to retailers in quantities of five cases or more.

Credit terms to wholesalers in the North were 2% 10 days, net 30 days; while in southern and western districts credit terms were 2% 15 days, net 60 days; and in Pacific Coast cities credit terms were 2% 30 days, net 90 days if shipment was made directly from the factory, and 2% 10 days, net 30 days if deliv-

ery was made from the San Francisco warehouse of the company. A minimum order of 25 cases was required from wholesalers. The order could be either for a single product or could be made up of mixed lots of the company's products. On sales to wholesalers the company paid the freight to any station east of the Mississippi River; shipments were made west of the Mississippi in carload lots only.

A discount was allowed by the company on all carload shipments to customers, whether made up of mixed lots or of a single product, except in the comparatively rare instances in which carload shipments were made from the branch warehouses. Although the amount of the discount varied with the weight and the value of the different Tarpon products, it coincided approximately with the saving in freight made possible by carload shipments. At a wholesaler's request, drop shipments in units of 5 cases or more were made to retailers in cities in which the wholesaler had no warehouse; in any city in which the wholesaler had a warehouse, drop shipments were not permitted for quantities of less than 25 cases.

Tarpon products were sold only in package form. In general, they were packed in cases containing from two dozen packages to eight dozen packages, depending on the size of the packages.

The company issued three printed price lists on which prices were shown by cases for each style of packing of each product. The direct selling price list showed the prices at which the company sold directly to retailers. The wholesale cost price list showed the prices at which the company sold to wholesalers. The wholesale selling price list showed for 1, 5, 10, and 25 cases the prices at which Tarpon Company salesmen accepted orders from retailers to be turned over to wholesalers to be filled; prices on this list were graduated according to the quantities involved. The company did not attempt to enforce the maintenance of standard resale prices by retailers, but it expected wholesalers to conform in general to the prices indicated on the wholesale selling price list.

A differential based on 15 cents a case of 96 packages existed between the direct selling price list and the wholesale cost price list; this differential had been established when the company began selling directly to retailers and had been expected to provide for losses from bad debts which might occur under the

company's policy of making an initial sale of 5 cases to any retailer in the direct selling territories, without reference to his credit standing.

The gross margin which a wholesaler obtained on Tarpon products depended both on the size of his purchases from the company and on the size of the individual orders that he secured or accepted from retail grocers. For example, the price to a wholesaler for "Product A" was $5.75 a case for lots of between 25 cases and a carload and was $5.625 a case for carload lots. The maximum price at which Tarpon salesmen accepted orders for Product A from retailers for wholesalers' accounts was $6.35 for a single case, and the minimum price was $6.20 a case for orders involving at least 25 cases. Thus a wholesaler's gross margin on Product A, exclusive of cash discounts, might vary between 7.25% and 11.4%; this product was the oldest and most firmly established article manufactured by the Tarpon Company.

For all styles and sizes of Tarpon products the average gross margin to the wholesaler, based on cost before deduction of cash discounts and on purchases in less-than-carload lots, was 10.3% of the wholesale selling price on sales of less than 5 cases, 9.2% on sales of from 5 to 9 cases, 8.1% on sales of from 10 to 24 cases, and 7.0% on sales of 25 cases or more. If, however, the wholesaler had purchased in carload quantities, the average gross margins on sales in those quantities, exclusive of cash discounts, were 11.6%, 10.6%, 9.5%, and 8.4%, respectively. These variations in gross margin encouraged both wholesalers and retailers to order Tarpon products in relatively large quantities; the lower gross margins which the wholesaler obtained on the larger unit sales to retailers were offset by the smaller expenses involved in the larger sales.

In certain sales districts three types of orders thus might be taken by Tarpon salesmen: orders from retailers to be filled by the company; orders from wholesalers to be filled by the company; and orders from retailers to be filled by wholesalers. Practically all orders for carload lots were shipped from the factory. Orders which the company accepted from unit stores in direct selling cities, as well as orders for less-than-carload lots accepted from wholesalers or chain store companies in direct selling cities, were filled from stocks maintained by the company in public storage warehouses in those cities. Less-than-carload

orders from wholesalers and chain store companies in non-direct selling cities were filled either from district warehouse stocks or from the factory, depending upon the relative accessibility of the stocks to the customers' cities. Drop shipments ordinarily were made from the factory; if, however, freight charges were lower on the basis of a carload rate to the warehouse and a less-than-carload rate to destination than on the basis of a less-than-carload rate from the factory to the destination, the traffic manager released drop shipments from the most accessible warehouse. Invoicing always was done at the point of shipment of the products ordered. It was desirable in recording sales to distinguish, for stock control purposes, between orders which were to be filled by the company from factory stocks and orders which were to be filled from the branch warehouse stocks; it was necessary to exclude from the sales records, of course, orders which were to be turned over to wholesalers to be filled.

The general sales manager held his district sales managers responsible for the detailed supervision of their districts, and desired to make regular examinations of reports in summary form only. He preferred that his district sales managers should maintain control by means of frequent visits to their territories and by their personal sales activities among the more important customers, rather than through the examination of a large number of detailed reports from the salesmen.

Records of orders received, which for purposes of sales control were regarded as sales, were secured from daily sales records compiled by the salesmen from their order forms. Two order forms were used; the one shown as Exhibit 1 was used for both wholesalers' and retailers' orders in direct selling territories, and the one shown as Exhibit 2 was used for orders from wholesalers in non-direct or "country" territories and for orders taken in either direct selling or country territories from retailers for the accounts of wholesalers.

No duplicate of the form shown as Exhibit 1 was made by the salesman unless a copy was requested by the customer, nor was the customer required to sign the order; such orders were subject to cancellation and were not regarded as constituting contracts. The form shown as Exhibit 2, unlike Exhibit 1, required the signature of the buyer and was considered by the Tarpon Company as a binding contract; all orders taken from retailers on

Salesman	Date	Received	Mailing List if New	Terms

Name			
Place		Date of Shipment	
REMARKS—Do not write in this space any complaint regarding past orders. Use a separate sheet for that purpose.		Checked	Receipted by
		Charged by	

No. Cases		Packages per Case	Price	Amount
______	Product A ______	96		
______	Product B ______	96		
______	Product C ______	96		
______	Product C ______	48		
______	Product D (Regular Size) ______	60		
______	Product D (Triple Size) ______	20		
______	Product E ______	48		
______	Product F (Regular Size) ______	48		
______	Product F (Double Size) ______	24		
______	Product G (Regular Size) Large Case ______	96		
______	Product G (Regular Size) Small Case ______	48		
______	Product G (Double Size) ______	24		
______	Product H ______	48		
	Window Display ______			

Exhibit 1: Order form for direct selling territories.

Exhibit 2 were subject to acceptance by the designated wholesalers, while wholesalers' orders written on that form had to be accepted at the district sales office before becoming valid.

Retailers' orders taken on the form shown as Exhibit 2, after having been signed by the retailers, usually were taken to the designated wholesalers by the Tarpon salesmen for acceptance, and the salesmen at that time customarily solicited orders from the wholesalers. If the wholesaler designated by a retailer re-

	Mailing List if New	
Order No.________		__________, 19___

TARPON COMPANY

Ship to ____________________

Place ____________________

Wholesaler ____________________

Location of Wholesaler ____________________

Shipping Date ____________________

Number of Cases	Description	Size	Price
____	Product A ____	96	____
____	Product B ____	96	____
____	Product C ____	96	____
____	Product C ____	48	____
____	Product D (Regular Size) ____	60	____
____	Product D (Triple Size) ____	20	____
____	Product E ____	48	____
____	Product F (Regular Size) ____	48	____
____	Product F (Double Size) ____	24	____
____	Product G (Regular Size) Large Case ____	96	____
____	Product G (Regular Size) Small Case ____	48	____
____	Product G (Double Size) ____	24	____
____	Product H ____	48	____

Do Not Write in This Space

SUBJECT TO ACCEPTANCE

This order guaranteed genuine

Member American Grocery Specialty Manufacturers Association

Purchaser ____________________

Salesman ____________________

Accepted ____________________

Exhibit 2: Order form for country territories.

fused to accept the order, the Tarpon salesman undertook to secure its acceptance by some other wholesaler in the locality. A carbon copy of the retailer's order was forwarded to the district sales office after acceptance of the order by the wholesaler. In the case of an order secured on Exhibit 2 by a Tarpon salesman from a wholesaler, the original was sent to the general sales office after the order had been accepted by the district sales manager, and a carbon copy was kept at the district sales office.

Two forms were provided for the salesmen's use in reporting a summary of their daily sales, a "daily report—direct selling points," as illustrated in Exhibit 3, and a "daily report—country sales," as illustrated in Exhibit 4. The entries on those forms were for quantities, not for values in dollars and cents. At the close of the day each salesman filled out his daily sales reports. Exhibit 3 was used by each salesman to record the orders accepted from retailers, chain store companies, and wholesalers in direct selling cities. No distribution was made on this report between the several types of customers, although the sales executives' familiarity with the names of customers made such classification possible. Orders from wholesalers and chain store companies in country territories were recorded in the "Direct Shipment" section of Exhibit 4. Orders taken from retailers to be turned over to wholesalers were recorded in the "From Wholesaler's Stock" section of that exhibit. Provision was made on each of the forms for a record of the balance of orders received to date in quantities for each style of packing of each product. The final figure for the last day of the month thus showed by products the total quantity of merchandise for which orders had been received during the month. These summary reports were forwarded daily in duplicate to the district sales offices, and from those offices copies were sent to the general sales office.

In 1925 a monthly sales report was instituted upon the suggestion of one of the district sales managers. The purpose of the report was to provide closer contact between the general sales office and the individual salesman. This report, illustrated in Exhibit 5, was filled in daily at the district sales office for each salesman from the data on his daily sales reports and showed, in quantities for each product on the basis of the principal class of packing of the product, summaries of the orders received from

DAILY REPORT
DIRECT SELLING POINTS

Date ______________ City ______________ Salesman ______________

Purchaser	Address	PRODUCTS												
		A	B	C	C	D	D	E	F	F	G	G	G	H
		96 Pk	96 Pk	96 Pk	48 Pk	60 Pk	20 Pk	48 Pk	48 Pk	24 Pk	96 Pk	48 Pk	24 Pk	48 Pk
Brought Forward														
Monthly Sales to Date														

Exhibit 3: Salesman's daily report—direct selling points.

DAILY REPORT

COUNTRY SALES Date ______ Name ______ City or Town ______

Sold to	Wholesaler	FROM WHOLESALER'S STOCKS												
		PRODUCTS												
		A	B	C	C	D	D	E	F	F	G	G	G	H
		96 Pk	96 Pk	96 Pk	48 Pk	60 Pk	20 Pk	48 Pk	48 Pk	24 Pk	96 Pk	48 Pk	24 Pk	48 Pk
Brought Forward														
Monthly Sales to Date														
DIRECT SHIPMENT														
Brought Forward														
Monthly Sales to Date														

Exhibit 4: Salesman's daily report—country sales.

wholesalers, the orders taken from retailers and accepted by wholesalers, the sales made directly to retailers, and the orders received by mail or telephone; chain store companies were included under the designation "retailers." Orders received by mail or telephone, including those for drop shipments, were credited to the accounts of the salesmen in whose territories the customers were located; such orders were filled out on the usual forms, and copies sent to the salesman and to his district sales office.

The monthly sales report of each salesman was mailed at the end of the month to the general sales office. In that office a clerk recorded in the lower right-hand corner the quota in cases, by products, which had been assigned to the salesman. A unit system, as described later, had been developed for use in sales analysis work; the quota in cases by products was recomputed to the unit basis, as were the sales for the month. In the lower left-hand corner of the report the salesman's rating for the month was entered. This rating was based on the salesman's sales units for the current month as compared with one-twelfth of the total units in his quota for the year. Prizes were given the salesmen having the highest monthly ratings. After the reports had been scored and the points recorded at the general sales office, the reports were returned to the salesmen.

Upon receipt of orders on Exhibit 1 at a district sales office, all orders from wholesalers and chain store companies for which immediate delivery was not required were forwarded to the general sales office. These orders usually were for carload shipments. No copies of these orders were maintained in the district sales office; the data were available for reference, however, on the salesmen's daily reports. Orders from retailers and those orders from wholesalers which required immediate delivery were handled entirely under the supervision of the district sales office. This necessitated provision for invoicing, delivery, and collection. Orders received from retailers were checked against the ledgers to ascertain whether there were open charges against the customers; if there were none, the orders were approved by the credit department and invoices were prepared in duplicate.

The company in a majority of its sales districts did not maintain its own delivery equipment but patronized local express companies on a commission basis. This situation, together with the

Sales Report for Month Ending ____________
Salesman ____________
Territorial Manager ____________

District Worked ____________

	EXCLUSIVE WHOLESALE									SALES THROUGH WHOLESALER							
	PRODUCTS									PRODUCTS							
	A	B	C	D	E	F	G	H	Date	A	B	C	D	E	F	G	H
1																	
2																	
3																	
4																	
5																	
6																	
7																	
31																	
Total																	
Canceled																	
Net Sales																	
	MAIL AND TELEPHONE									DIRECT RETAIL SALES							
1																	
2																	
3																	
4																	
5																	
6																	
31																	
Total																	
Canceled																	
Net Sales																	

This Report Is

____

____

Quota for Year

Product A ____________ Boxes
Product B ____________ Boxes
Product C ____________ Boxes
Product D ____________ Boxes
Product E ____________ Boxes
Product F ____________ Boxes
Product G ____________ Boxes
Product H ____________ Boxes
Total Units ____________ Units
Units secured this month ____ Units

Exhibit 5: Monthly sales report.

use of public storage warehouses, necessitated a system of authorization records for use by the warehousing and delivery companies. From the invoices, traffic sheets, showing by delivery routes the number of cases of each product to be delivered, were prepared, not only for the districts in which the company used the services of express companies, but also for those districts in which it provided its own delivery service. Those sheets, as corrected after the deliveries were made, showed by products the quantities withdrawn from warehouse stocks.

The man making the deliveries obtained the signatures of the customers on the duplicates of the invoices and left the originals of the invoices with the customers. The duplicates of the invoices were returned by the delivery man to the warehouse together with any merchandise which the customers had refused to accept. Notations of such refusals were made on the traffic sheets, as well as on the duplicates of the invoices, in order to maintain an accurate record of stocks still on hand in the warehouse. The duplicate invoices which had been receipted by the customers were returned by the warehouse to the district sales office, together with a corrected copy of the traffic sheets. Copies of the traffic sheets kept at the district office then were corrected and sent to the general sales office, together with a summary list of the charges which had been posted to the customers' ledgers from the receipted invoices for the deliveries shown on the traffic sheets.

At the end of each day two types of recapitulation sheets covering the day's deliveries were drawn up from the traffic sheets. One recapitulation sheet showed for each product the quantities called for on each traffic sheet and the total amount in dollars as posted to the ledgers. The other recapitulation sheet showed the classification by towns of the total number of cases for each product delivered for the day. Separate recapitulation sheets were made for deliveries to retailers, chain stores, and wholesalers. Similar recapitulation sheets were drawn up at the central office covering shipments made from the factory upon customers' orders.

From the daily recapitulations of the traffic sheets, monthly sales analyses were prepared for each sales district by the statistical department at the central office; these analyses showed by towns the number of cases of each size of each product delivered from either factory or district stocks. These reports were completed as rapidly as possible following the close of the month and

usually were in the hands of the district sales managers by the twentieth of the following month. The reports were considered valuable to the district sales managers in checking the results of each salesman and in guiding salesmen in their concentration of sales efforts and in planning their activities.

When a retailer's account in a district office became 30 days old, it was turned over to the company's collector in whose territory the customer was located. At the end of each day each collector reported at the district sales office and turned in the cash which he had collected during the day; the collector's daily report was checked against the accounts which had been given him for collection, and the required postings were made to the customers' ledgers.

A cashier's window was maintained at each district sales office for receiving payments made by mail or by retailers coming in person to the office. These collections were checked against the ledger accounts and a summary report of so-called "window collections" was prepared which, together with a summary report of receipts turned in by collectors, was forwarded daily to the main office of the company, together with all cash and checks collected. Semimonthly check-ups were made of customers' accounts receivable to make sure that no accounts were being overlooked.

As previously stated, copies of the daily sales reports of the salesmen were maintained in the district sales offices, and other copies were forwarded to the general sales office. From the totals of the salesmen's daily sales reports received in the office of the general sales manager, a "daily sales summary" was prepared on a form shown as Exhibit 6. This form showed for each style of packing of the products the total orders recorded for the day in number of cases according to the type of sales territory.

The first section of the report, "Country," showed for the day in question the quantities ordered by wholesalers for shipment from the factory. This did not include orders taken from retailers to be turned over to wholesalers, since such orders were not filled by the company. The second section of the daily sales summary form provided for recording orders received at direct selling points to be filled from the stocks at those points. The sum of the "country" sales and the "direct selling points" sales represented total daily gross sales in quantities. Cancellations were entered under the heading "Deductions."

DAILY SALES SUMMARY

Date

	Product A	Product B	Product C		Product D		Product E	Product F		Product G			Product H	Total Orders
			96 Pk	48 Pk	60 Pk	20 Pk		48 Pk	24 Pk	96 Pk	48 Pk	24 Pk	48 Pk	
Country														
Direct Selling Points														
TOTAL														
Deductions														
GRAND TOTAL														
Gains														
Losses														
This Month														

TOTAL DEPT. 1	TOTAL DEPT. 2

GAIN

LOSS

Exhibit 6: Daily sales summary.

Below the double line the daily sales summary form provided for a recapitulation of sales for the month to date; on the line designated "Grand Total" were entered the net sales in quantities recorded for the month up to the day of the report. "Gains" and "Losses" represented a comparison, by products, of the net quantities sold to date during the month with the quantities sold during the corresponding period of the preceding year. The "Gain" and "Loss" spaces at the bottom of the form were used to show a comparison of the monthly sales of all products to date with those for the corresponding period of the same month of the previous year. The form also showed the total orders for the day for products of each of the two product group departments. This report was prepared in the office of the general sales manager; copies were sent to the general sales manager, the order division, the traffic department, and the factory.

Although the company did not budget expenses, the general sales manager set a sales quota, in cases, for each product for each sales district; and the district sales manager prorated this quota to the salesmen in the district. On products for which at least some market had been developed in a given sales territory, the quotas were set on the basis of results secured for the previous year, the length of time during which the products had been sold in the territory, and the estimates of the general sales manager and of the district sales manager regarding general business conditions. The general sales manager aimed to establish quotas which could be attained by the exertion of the maximum sales effort that could be sustained throughout the year. Bonuses were given sales districts which attained or exceeded their quotas either for individual products or for all products.

Charts were prepared for the general sales manager at the end of each quarter which showed by horizontal bars for each product the sales for the year to date as compared with the quota for the entire year.

For analyses of sales, the general manager was convinced that neither dollar figures nor the number of cases gave adequate comparability either as between sales of the various salesmen and sales districts, sales of the various products, sales in relation to expense, or as between results for different periods of time. Variations existed between the products in the number of packages per case and in the size and weight of the packages; for sev-

eral of the products the company's selling prices fluctuated from time to time in general correspondence with the cost of raw materials; the weights of the items bore only slight relationship to their prices; and distinct variations existed in the range of prices per case for the different products. Because of the price fluctuations, the general sales manager was not satisfied with sales comparisons based on dollar figures only; his entire system of sales reports had been developed on the basis of orders received in terms of number of cases. In analyses of the distribution of each product, individually, this basis of comparison was satisfactory, but as a basis for comparisons involving more than one product it offered difficulties.

Although he wished the sales comparisons to be independent of the influence of price fluctuations, the general sales manager considered it important that the comparisons should show for various periods the relative value to the company of the total orders taken by each salesman and in each sales district. Sales in cases or in packages did not show relative values. The desired figures were ones which would represent sales in physical quantities weighted in accordance with normal price relationships. A statistical device was needed which could be used for translating the quantities sold of a number of products, put up in packages of different sizes, into terms of a common unit so designed as to recognize the normal price relationships of the products. Approximately 60% of the total sales of the company were of Product A, an article that was particularly subject to price variations. Until 1923 the general sales manager had divided the sales of all products in dollars by the price of one case of Product A to secure a statistical figure to represent total quantity sales. This was later deemed to be unfair to salesmen who sold large quantities of the other products, inasmuch as the prices of most of those products were lower than the price of Product A.

The device finally adopted by the general sales manager was as follows: The normal price relationship of each product to Product A was computed. One 96-package case of Product A was taken as one unit. Each of the other products was assigned for each style of packing a unit value in general correspondence with the ratio which its normal price bore to that of Product A. The normal price per case for Product D, for example, was approximately 60% of that for Product A; one case of Product D,

therefore, was computed as 60% of one unit. Thus, if 213,695 cases of Product A and 41,096 cases of Product D were sold during a period, the combined sales in units were 238,353; that is, $213{,}695 \times 100\% + 41{,}096 \times 60\% = 238{,}353$. Unit values were established similarly for each style of packing of each of the company's products. This plan was deemed by the general sales manager to be satisfactory for all comparisons of sales, as well as for comparisons of the cost to sell for the different territories, either between different territories for the same period of time or for a single territory for several operating periods.

Sales quotas, after they had been established on the basis of the number of cases of individual products, were computed in terms of units. The total annual quotas in units were obtained for the districts and for the different salesmen, and sales for each quarter were translated into units for comparison with the quotas.

The sales reports thus far described were for the most part prepared in the sales department from information originating with the salesmen and were for use by the sales executives. It was necessary, of course, for the accounting department to obtain adequate records of the sales activities both in order to maintain control accounts for customers' ledgers at district sales offices and at the central office and in order to accumulate a record of net sales for the periodic profit and loss statements.

In this connection a difference of viewpoint developed. The general sales manager desired information which showed him the effectiveness of his personnel in securing orders for the company's products, and consequently he was primarily interested in a record of "orders received," while the accounting division was interested in a record of only those orders which had been filled and invoiced. The company had been growing constantly and orders had exceeded production, with the result that the factory commonly had produced to fill existing orders and seldom had manufactured goods for stock beyond the normal warehouse requirements. This situation often had caused material differences between "orders received," and "billings" during a period. The difference was particularly noticeable in the records for a sales district where a single large shipment, because of its size, was delayed in leaving the factory.

Records of billings, which were treated by the accounting department as sales, were obtained by that department from the

summary reports of charges compiled from the invoices at the district sales offices and at the main office. These records were classified by the accounting division according to the grouping used by the sales department, that is, as "direct selling point sales" and "country sales." They were not classified by districts, however.

District warehouse stocks of Tarpon products were under the control of the traffic department, which was located in the general offices of the company. This department also had charge of the movement of stocks from the factory, both to warehouses and customers, and of the delivery of the company's products from warehouse stocks to customers. The copies of the traffic sheets and the recapitulations of those sheets which were forwarded daily from each district sales office to the general office permitted the traffic manager at all times to know what stocks were available in the warehouses.

In general, records of sales originated with the salesmen, passed through the district sales offices, where detailed compilations were made, and were forwarded to the general sales executives in summary form. For records of sales and collections the control division depended on summary reports of original records which were prepared in the district sales offices or in the general sales office and forwarded to the accounting and statistical divisions. From these summary records the controller prepared his reports for the management. Records of expenses incurred within a sales district followed a similar procedure.

Semimonthly expense reports were submitted by each salesman on a form shown as Exhibit 7. These reports covered not only the salesman's expenses but also the expenses of the sales promotion assistants, such as window trimmers and canvassers, who worked under his immediate supervision. On the back of the expense form the salesman itemized his personal expenses. The expenses for assistant salesmen, window trimmers, canvassers, and chauffeurs, and the automobile expense were taken in total from reports submitted by the assistants to the salesman. The salesman forwarded these reports to the district sales office with his own reports. Expenses for livery, telephone, rent, and storage, and any substantial amounts of miscellaneous expense were supported by vouchers submitted by the salesmen with their reports.

Two automobile expense reports were submitted. One showed

(Kindly use reverse side of this sheet to show itemized expenditures)

SEMIMONTHLY SUMMARY OF EXPENSES

Mr. ____________________

Date __________ 19____

		Hotel		
		Railroad Fare		
		Car Fare		
		Livery Days		
		Assistants — Office		
		Assistant Salesmen		
		Window Trimmers		
		Canvassers		
		Chauffeurs		
		Telephone		
		Automobile Expense		
		Rent and Storage		
		Miscellaneous Expense		
Entered				
Paid				
		Total		

Exhibit 7: Salesman's expense report form.

the expenses incurred for automobiles used in supplying canvassers with materials, in transporting window displays from the district headquarters to retail stores, or by the salesmen in calling on customers. The other automobile expense report showed expenses incurred for delivery cars in those sales districts which used the company's own transportation facilities. The expense report form for delivery cars is illustrated by Exhibit 8. The

Car No. ____________

Type ____________

Month Ending ____________

Salesman ____________

Chauffeur ____________

AUTO EXPENSE REPORT FOR DELIVERY CARS

Entered by ____________

Repairs Checked by ____________

Exceptions ____________

Audited ____________

Passed ____________

No. Deliveries	No. Tons Carried	Date	Daily Mileage	Towns Visited	Gal Gas	Total Cost Gas	Qts. Oil	Total Cost Oil	Repair Chassis	Repair Body	Tire and Tube Expenses	Storage	Wash and Polish	Misc. Expenses	Totals $	cts.
		1														
		2														
		3														
		4														
		5														
		6														
		7														
		8														
		9														
		10														
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		24														
		25														
		26														
		27														
		28														
		29														
		30														
		31														
		Total														

Exhibit 8: Automobile expense report for delivery cars.

expense report form for salesmen's cars was the same except that the columns headed "Number of Deliveries" and "Number of Tons Carried" were omitted. On the backs of the automobile expense report forms were printed detailed instructions to guide the drivers in reporting expenses to the salesmen or to the district sales managers under whom they worked. Automobile expense was reported only at the end of each month, and consequently no entry was made for this item on the salesmen's expense report for the middle of the month.

Salesmen forwarded their semimonthly expense reports, made out in duplicate, to their district sales managers immediately upon the completion of the periods covered by the reports. The district sales managers examined them and, if they approved the expenses, forwarded one copy of the reports to the office of the general sales manager accompanied by reports of their own expenses made out on the same form.

An expense summary sheet was maintained in the office of the general sales manager for each salesman and for each district sales manager. To these sheets were posted the data from the semimonthly expense reports. The sheets provided spaces for each of the items of personal expense shown on the salesmen's semimonthly expense reports grouped by months. To these summary sheets also were posted the totals of each of the expenses reported by the salesmen for their assistants and for automobiles under their control used in selling and sales promotion activities. Expense for delivery trucks was not included; this was the responsibility of the traffic department.

At the end of each month each district sales manager compiled a report of expense for salesmen's salaries in his district during the month. This report consisted simply of a tabulation of the names of salesmen and the amount of salary due each. The original of this memorandum report was forwarded to the general sales manager and a copy was filed in the district sales office. The amounts of the salaries were posted to the salesmen's expense summary sheets at the general sales office, and orders were drawn on the cash department for payments to be made as designated.

When the district sales manager had completed his report of salaries for the month, he had data available from which to compute the comparative results of each salesman. Copies of the salesmen's daily reports on file in the district sales office showed

MONTHLY SALES RECORD

Mr. ____________________

Territory ____________________ Month *March, 1926*

Sales for Month—96-Pk. Case Basis

	Product A	Product B	Product C	Product D	Product E	Product F	Product G	Product H
3/15	765	–	7.5	264.4	58.5	–	49.5	21
3/31	206	–	4.0	72.5	11.5	–	41.5	–
Total 1501.4	971	–	11.5	336.9	70.0	–	91.0	21

Expense 3/15 224.46 3/31 235.07 Salary 225.00 Total 684.53	Cost to Sell 46 Cents per Case	Same Period Last Year Sales—96-Pk. Basis 1434 Cost per Case 71 Cents

Exhibit 9: Salesman's monthly sales record.

orders secured. Expenses of salesmen and of canvassers and other assistants were available from the salesmen's semimonthly expense reports. From this material a clerk in each district sales office compiled for each salesman a monthly sales record here illustrated as Exhibit 9.

On the monthly sales record for each salesman the net orders obtained by the salesman were listed for each product in terms of 96-package cases. For example, if the salesman had obtained orders for 15 of the 48-package cases of Product C during the first half of the month and for 4 of the 96-package cases during the last half of the month, the record was computed as follows:

First half month, 15 48-package cases	=	7.5 96-package cases
Second half month, 4 96-package cases	=	4.0 96-package cases
Total		11.5 96-package cases

The total of orders secured for all products as computed on this basis was entered on the monthly record to the left of the totals for the separate products.

The total of the expenses shown on the salesman's two semimonthly expense reports and the salesman's salary for the month were entered in the lower left-hand corner of his monthly sales

record; no proration of district sales office expense was included in these items. Division of the total expense by sales expressed in terms of 96-package cases gave the figure for cost to sell per case. The form also provided for notation, in comparable terms, of the total quantity sold and the cost to sell per 96-package case for the same month of the previous year.

The simple method by which sales were reduced to comparable terms on this report was entirely different from the unit method used by the general sales manager in computing sales quotas and total sales for each district. It seemed satisfactory, however, for use by the district sales executives in checking up the work of individual salesmen from month to month, and was not expected to serve as a permanent record upon which bonuses and promotions would be based.

For a number of years the general sales manager had computed for each sales district a quarterly cost-to-sell figure which was based on the relationship between the orders obtained by salesmen in that district during the quarter and the total expenses incurred by the salesmen and their assistants as well as the other direct selling and sales promotion expenses incurred within the district during that period. It had been the view of the general sales manager that separate figures for each type of expense incurred were of no value to him in gauging the effectiveness of the several sales districts.

The first item on the general sales manager's cost-to-sell report for each sales district, as illustrated by Exhibit 10, was "Salaries and Expenses" and was compiled from the salesmen's and the district manager's expense summary sheets. It included salesmen's salaries and bonuses; salesmen's personal expenses, including railway and hotel expense; and the salaries and expenses of canvassers, window trimmers, and other assistants to salesmen. It also included expenses incurred at district sales offices for sales and sales promotion activities, including wages and office expense. The second heading represented the outlay within the sales district for special advertising such as newspaper advertising done in cooperation with local retailers. Expense of this type was reported by the district sales manager as a part of his own semimonthly expense report.

The third item of expense on the cost-to-sell report was designated "Coupons." One of the company's principal methods of

For................ Quarter ....

Cost to Sell .... District

Salaries and Expenses					
Local Advertising					
Coupons					
Cost of Advertising Matter					
Automobile Expense (including Depreciation)					
Total District Selling Expense					

PRODUCT SALES

Product		Cases	Units
A	96 Pk.		
B	96 Pk.		
C	96 Pk.		
C	48 Pk.		
D (Regular Size)	60 Pk.		
D (Triple Size)	20 Pk.		
E	48 Pk.		
F (Regular Size)	48 Pk.		
F (Double Size)	24 Pk.		
G (Regular) Large Case	96 Pk.		
G (Regular) Small Case	48 Pk.		
G (Double Size)	24 Pk.		
H	48 Pk.		
Total—Net Orders Received			
Cost to Sell per Unit			

Exhibit 10: District cost-to-sell report.

sales promotion was the distribution from house to house of coupons which, under stated conditions, were redeemable at retail stores for standard-sized packages of the company's products. The company's salesmen collected the redeemed coupons from the retailers, and the company reimbursed the retailers for the merchandise which they had given to consumers in exchange for the coupons. The cost to the company of this type of sales promotion included, therefore, not only the expense of the distribution of the coupons by the canvassers, which was included with salesmen's expenses, but also the redemption expense for merchandise given out by retail grocers in exchange for the coupons. In returning to the general sales office the coupons which they had collected from retailers, the salesmen used a special report form.

Payment to the retailers from whom the coupons were collected customarily was made by check after the coupons were received at the general sales office; in some instances, however, salesmen paid the retailers at the time of collection and in turn were reimbursed from the general sales office. In any case, the actual payment for the redemption of coupons was made at the main office and the expense incurred was charged to the district sales office coupon account and was included under the item "Coupons" on the cost-to-sell report.

"Cost of Advertising Matter," the fourth item on the cost-to-sell report, represented the cost of window displays and similar advertising matter shipped to district sales offices upon requisitions made by salesmen and approved by district sales managers. No report of this expense was kept at the district sales offices, since the expense could be recorded at the main office at the time of shipment to the district sales offices. The material was for use within the sales districts, however, and consequently was charged to the district sales managers' expense accounts on the records of the general sales office.

Information for the heading of "Automobile Expense (including Depreciation)" on the cost-to-sell report was secured from the automobile department and represented not only the expenses reported by salesmen and district sales managers on the monthly automobile expense report forms but also the interest and depreciation on those automobiles, which were computed in the office of the automobile department.

A special report was prepared annually by the automobile department for the general sales manager which showed for each automobile, by sales districts, the number of days operated, the number of miles operated, the cost per day, the cost per mile, direct expenses, and interest and depreciation. These data were combined for each territory to show the average cost per day, the average cost per mile, and the total expense; a recapitulation for all sales and sales promotion automobiles showed the total operating expense, interest and depreciation, profit or loss on all cars sold, and the total outlay. A similar report was prepared by the automobile department for the traffic manager, which showed in addition the relationship of expenses to number of deliveries and tonnage delivered. The general sales manager did not examine this report, since he considered this the responsibility

of the traffic managers, nor did he include delivery expense in his cost-to-sell report.

"Total District Selling Expense" shown on the cost-to-sell report for a district represented not only the expenses incurred within the sales district but also those expenses which, while incurred at the general sales office, were directly chargeable to the district. No proration was made to the district sales office reports for general sales office salaries and expenses or for any general overhead expense, nor did the report include freight, delivery, or warehousing expenses, which were under the control of the traffic manager. Similarly, the credit and collection expense was not included in the cost-to-sell report, since the credit manager was responsible for that expense.

On the lower part of the cost-to-sell report were listed the company's products in each style of packing. Orders received for each style of packing of each product were entered in cases and in units computed on the basis of the unit values assigned as previously explained. Division of the total expense by the total number of sales units gave a figure for cost to sell per unit. In effect, this computation showed the cost to sell for all products on the basis of the cost to sell per case of Product A, the oldest and most widely sold product of the company, which had been assigned a value of one unit.

In addition to the computation of the cost to sell per unit for each of the sales districts, there was prepared for the general sales manager on the same report form what was known as the "Cost to Sell Everywhere." This report included not only the totals for each of the expenses shown on the district reports but also the salaries and other direct expenses of the general sales office.

The general sales manager stated that the cost-to-sell reports, in connection with the reports which he received showing sales in comparison with quotas, afforded him ample statistical material for controlling the activities of his district sales managers. The cost-to-sell reports usually were available within 20 days after the end of the period covered.

Beginning in 1926, the general sales manager was made a member of a newly formed executive committee which consisted of the general officers of the company and all major department heads. All members of this executive committee received the quarterly

profit and loss statements prepared by the controller. The general sales manager stated that although the profit and loss statements undoubtedly were necessary for the general officers of the company, they were of slight value to him in controlling sales activities, inasmuch as the profit and loss statements were the result not only of sales activities but also of manufacturing operations, were based on invoices rather than on orders received, and did not segregate charges which were controllable by himself or by his district sales managers.

Although satisfactory control of sales activities seemingly was afforded by the system of records in use, those records did not serve to show the relationship of the sales department to the other phases of the company's business. The newly appointed controller was expected to prepare data for the general officers and directors which would show net sales in relation to the costs of conducting each phase of the company's activities. The basic form in which such data customarily were summarized was the profit and loss statement.

In developing the profit and loss statement the controller's first task was to decide as to the major headings under which expenses should be grouped. The general officers were of the opinion that the company's activities naturally fell into two groups, activities of production and activities of distribution, and that all the company's expenses were incurred for the benefit of one or the other of these divisions and, consequently, should be charged to them. The production or factory division was charged with the costs of producing and packaging the company's products, including raw materials, factory labor, other direct expenses, factory warehousing, and all indirect or overhead expenses which were attributable to preparing the products for sale. Expenses for selling, sales promotion, shipping, district warehousing, traffic control, credits and collections, and related activities, were regarded as properly chargeable to the sales division. All general administrative expenses not fairly chargeable to the factory division were charged to the sales division as part of the cost of distribution. In recognition of the distinction between the actual selling activities, which were the function of the sales department, and those general administrative activities involved in distribution, the total non-factory expense was known as "Total Selling and Administrative Expense."

All directors of the company were actively engaged in administrative activities; by agreement among themselves, the controller was furnished with a schedule showing the proportions of their individual salaries which should be charged to the factory division and the sales division, respectively. This proration was based on the approximate concentration of the directors' and general officers' time on the work of the two divisions.

In accordance with the general principle of division of expense which had been established, the two main groupings of expense on the profit and loss statement were "Total Manufacturing Costs and Expenses," including the net cost of manufacturing after adjustment for inventories, and "Total Selling and Administrative Expenses," including not only those items of expense which were to some degree controllable by the general sales manager, but also charges which, although incurred for other than the factory activities of the company, were beyond his control. It was in developing this segment of the profit and loss statement that the controller had the problem of coordinating the accounting records with the records of sales and expenses maintained by the general sales manager. The development of the "Total Manufacturing Costs and Expenses" section is not discussed here, inasmuch as there was no overlapping between those accounts and the records of the sales department. "Net Profit or Loss" on the profit and loss statement was the difference between net sales and the sum of the two general groups into which expenses were gathered.

In developing the "Total Selling and Administrative Expense" segment of the profit and loss statement the controller desired, in so far as possible, to follow the general plan already in use by the sales department for the district cost-to-sell reports. On the profit and loss statement, however, it was deemed necessary to include additional expenses which the general sales manager excluded from his reports on the grounds that they were not within his control. The controller decided to establish accounts not only for selling departments but also for auxiliary departments, known as "Indirect Departments," such as traffic and shipping, stable and garage, accounting, statistical, and other administrative office departments. It also was necessary to provide for the inclusion on the profit and loss statement of such charges as taxes, insurance, equipment, repairs, and similar ex-

penses which, while not incurred directly by the sales division, were deemed to be chargeable to it.

"Total Selling and Administrative Expense" on the profit and loss statement was subdivided by the controller into four major groups of expenses: "Total Salesmen's Salaries, Expenses, etc."; "Total Shipping Expense"; "Total Promotion Expense"; and "Total Administrative Expense."

Under the blanket heading of "Total Salesmen's Salaries, Expenses, etc." expenses, after 1924, were subdivided as follows: "General Sales Department—Office Salaries and Wages"; "Salesmen's Salaries and Wages"; "Salesmen's Expenses"; "Sales District Automobiles and Trucks"; "Sales District Collectors"; "Commissions"; "Conventions"; and "Supplies and Sundries."

"General Sales Department—Office Salaries and Wages" included the salaries of the general sales manager, the assistant general sales manager, and the advertising manager, and also the salaries and wages of the personnel of the general sales office. The record of these expenses was obtained by the controller from operating accounts which he established for the accumulation of such charges as they were incurred; they amounted to less than 1% of the company's "Total Selling and Administrative Expense" in 1925.[2]

"Salesmen's Salaries and Wages" included the salaries regularly received by district sales managers and salesmen and the bonuses and special prizes which were distributed from time to time. "Salesmen's Salaries and Wages" were accumulated by the accounting department from the disbursement vouchers drawn by the general sales office on the cashier at the time the memorandum salary reports were received from the district sales managers. They amounted to less than 7% of the "Total Selling and Administrative Expense" for 1925.

In the profit and loss statements prepared by the controller during the period from 1921 to 1924 there were included under the heading of "Salesmen's Expenses" not only the personal expenses of salesmen but also the salaries and expenses of such salesmen's assistants as window trimmers and canvassers. Early

[2] On the actual profit and loss statement of the company, expenses were expressed in ratio to net sales. In this case, however, ratios to "Total Selling and Administrative Expense" have been used in accordance with the expressed desire of the company that the ratios to total net sales be not disclosed.

in 1924, however, the controller of the company became convinced that the expense heading "Salesmen's Expenses" represented such a substantial proportion of the total selling and administrative expense and involved such a large amount in dollars that more detailed subdivision was needed. Accordingly, in 1924, the group of expenses known as "Salesmen's Expenses" was subdivided, and separate items were shown on the profit and loss statement for "Salesmen's Expenses"; "Window Trimmers—Salaries and Expenses"; "Canvassers—Salaries and Expenses"; and "Other Assistants—Salaries and Expenses."

This subdivision of expenses had the further advantage of showing sales promotion costs and selling costs separately. Under the sales manager's method of including as a part of salesmen's expenses the salaries and expenses of canvassers, for example, it was not possible without special study of original reports to obtain a complete record of the cost of sales promotion activities. Prior to the change in 1924, the cost of redeeming canvassers' coupons had been shown by itself, but the cost of distributing those coupons had been included with "Salesmen's Expenses." With the subdivision of "Canvassers—Salaries and Expenses" on the profit and loss statement it was possible to determine the relationship between the expense of distributing canvassers' coupons and the expense of reimbursing retail grocers for the merchandise which they gave to consumers in exchange for the coupons. This subdivision of the expenses of salesmen's field assistants also permitted comparison of the amounts spent for the various types of sales promotion activities.

It was found that while "Salesmen's Expenses" on the old basis amounted to 16.2% of the "Total Selling and Administrative Expense" for the year 1925, on the subdivided basis "Salesmen's Expenses" amounted to approximately 4%, "Window Trimmers—Salaries and Expenses" to 2%, "Canvassers—Salaries and Expenses" to almost 9%, and "Other Assistants—Salaries and Expenses" to 1½% of "Total Selling and Administrative Expense" for that year. The economical use of canvassers became of particular importance in the minds of the general officers at that time, in view of the fact that expense for salesmen's salaries and wages amounted to less than that for canvassers.

The next subdivision of "Total Salesmen's Salaries, Expenses, etc." on the profit and loss statement was that for "Sales District

Automobiles and Trucks." The reporting of expense for automobiles and trucks used in the sales districts has been described; as the reports were received at the general sales office they were referred to the automobile department. In that department the operating costs, including insurance, taxes, and depreciation, were accumulated for all transit facilities of the company; the accounts were so classified, however, that at the end of the accounting period it was possible to secure a separate total for the expenses reported by district sales managers as contrasted with the other expenses of the department. The heading, "Sales District Automobiles and Trucks," represented expenses for automobiles used by salesmen and by the sales promotion force, and expenses for the company's trucks used in sales districts in delivering merchandise. Expenses for automobiles used by salesmen and their sales promotion assistants were deemed to fall naturally under the group designation of "Total Salesmen's Salaries, Expenses, etc."; in the case of owned delivery trucks this classification was thought to be logical because delivery trucks were used principally as a part of the program of direct sales to retailers and were in extensive use only at direct selling points; expense for delivery trucks included the wages of drivers. "Sales District Automobiles and Trucks" in 1925 amounted to 1½% of the "Total Selling and Administrative Expense" of the company. Expense incurred for hired delivery service was not included under this heading.

"Sales District Collectors" on the profit and loss statement represented the salaries and expenses of the collectors employed at direct selling points as well as credit department expense incurred in the district credit offices. This heading amounted to nearly 2% of the "Total Selling and Administrative Expense" of the company in 1925.

The heading "Commissions" on the profit and loss statement represented principally commissions to brokers. The company had begun to use brokers in 1923 primarily for the purpose of securing a wider distribution of some of its products, particularly in sections where it had not as yet established its own sales personnel. In 1925 less than one-half of 1% of the "Total Selling and Administrative Expense" was represented by "Commissions." The record of that expense was obtained for the profit and loss

statement directly from the accounts maintained on the books of the company with each of the brokers.

It was a policy of the company to hold at intervals of several years conventions of salesmen at which the sales policies of the company were discussed. The expense involved in such conventions was material in view of the fact that the 250 salesmen in the employ of the company all attended them. The heading "Conventions" was placed on the profit and loss statement to avoid confusion of that expense with expenses which were incurred regularly. The conventions were intended as a direct aid to the sales activities of the company.

The remaining expense heading in the "Total Salesmen's Salaries, Expense, etc." group, "Supplies and Sundries," represented a number of accounts maintained on the books of the company. This heading included not only the cost of supplies and sundries for sales offices and salesmen, but also the cost of repairs to furniture and equipment in the general and the district sales offices, the original cost of such furniture and equipment, and other incidental expenses incurred directly for either the general sales office or the district sales offices. Purchases of furniture and equipment were charged to expense; they were not capitalized and shown on the balance sheet.

The next group of expenses on the profit and loss statement was "Total Shipping Expense." Figures were shown separately for "Freight Outgoing," "Rent, Storage, and Insurance," "Traffic and Shipping," and "Stable and Garage."

The heading "Freight Outgoing" represented expense incurred by the company in transporting its merchandise either from the factory to the district warehouses or to the cities in which customers were located. It also included delivery expense for the use of hired truckage, although in 1926 the controller was contemplating the advisability of including this expense with that for the company's own delivery equipment. "Freight Outgoing" on the profit and loss statement amounted to approximately 15% of the "Total Selling and Administrative Expense" for 1925.

The "Rent, Storage, and Insurance" heading covered charges incurred for warehousing and insuring the company's products at points other than the factory warehouse. The heading also frequently included the rent of district sales offices, which, however, was small. This group of expenses amounted to less than

2% of the "Total Selling and Administrative Expense" in 1925.

"Traffic and Shipping" consisted of salaries and expenses for the traffic department and wages and expenses for the shipping department, including packing materials. This expense amounted to slightly over 3% of the "Total Selling and Administrative Expense" in 1925.

The heading "Stable and Garage" on the profit and loss statement represented the expense for transportation facilities owned by the company and maintained at the factory; that expense for company owned transportation facilities, in other words, which was not included under "Sales District Automobiles and Trucks." In addition to the expense of transportation facilities used in shipping the company's merchandise, it included all overhead charges incurred in the maintenance of the company's garage. This heading accounted for approximately 2% of the "Total Selling and Administrative Expense" in 1925.

The next group of expenses on the profit and loss statement was known as "Total Promotion Expense." This expense was subdivided into "General Advertising" and "Coupons." "General Advertising" covered all expenses for advertising, including local advertising done within the sales districts as well as all newspaper, magazine, street car card, poster, and other advertising prepared and placed by the advertising department in the general sales offices. This expense amounted to almost one-third of the "Total Selling and Administrative Expense" of the company in 1925.

The heading "Coupons" represented the same charges as those shown under that heading on the cost-to-sell reports of the general sales manager—that is, the expense to the company of redeeming the coupons accepted by retailers from consumers. This expense amounted to approximately 12% of the "Total Selling and Administrative Expense" in 1925.

The final group of expenses on the profit and loss statement was known as "Total Administrative Expense" and was shown under two headings: "Administrative Office" and "Executive." "Administrative Office Expense," amounting to approximately 2% of "Total Selling and Administrative Expense" in 1925, covered the expenses for all general offices, such as the accounting, statistical, order, credit, billing, customers' ledger, and mailing, which could not be charged directly to any of the accounts

previously described. The general sales office was located in a building owned by the company, and no rent was charged to the sales department for its use. Similarly, district sales offices which occupied property owned by the company were charged no rental. A building account was maintained as a part of the "Administrative Office Expense," to which were charged insurance, repairs, and maintenance expenses on buildings owned by the company. "Executive Expense," amounting to less than one-half of 1% of "Total Selling and Administrative Expense," covered the salaries of the executives who were not engaged in the manufacturing activities of the company.

In accordance with the classification of expenses outlined, the controller prepared the quarterly profit and loss statement for the total operations of the company, which showed in dollars and in ratio to net sales the data for each of the headings listed in Exhibit 11, for the current quarter, for the year to date, and for corresponding periods of the preceding year.

The quarterly profit and loss statement and analysis of results prepared by the controller usually was in the hands of the members of the executive committee approximately 45 days after the close of the fiscal period, although most of the basic data were available in 30 days. The relatively slow compilation of this complete accounting report as contrasted with the general sales manager's specialized cost-to-sell reports resulted from the necessity of closing the books for the period, compiling and summarizing the inventories, making the quarterly expense distribution, and analyzing the results. By quarterly expense distribution was meant the distribution of expenses from the accounts in which they were accumulated, such as "Rent," "Insurance," and "Taxes," for instance, to the departmental accounts, such as "Accounting," "Statistical," "Advertising," and "Traffic," and eventually to the summary accounts as they appeared on the profit and loss statement. According to the plan in effect in 1926, the accounting department did not keep accounts of individual expenses separately by sales districts; each account included the expense for the company as a whole. The adjustment of inventory data and the fact that the profit and loss statement was compiled from regular ledger accounts which necessitated balancing were stated as the principal reasons for the difference of 10 days between the time required for preparation of the cost-to-sell re-

Exhibit 11

Profit and Loss Statement

MANUFACTURING COST AND EXPENSE

Manufacturing Accounts in detail, including:
- Purchases of Raw Materials
- Direct and Indirect Manufacturing Expense (including Factory—Administrative)
- Inventory Adjustments

Total Manufacturing Costs and Expenses

SELLING AND ADMINISTRATIVE EXPENSE

General Sales Office—Salaries and Wages
Salesmen's Salaries and Wages
Salesmen's Expenses
Canvassers—Salaries and Expenses
Window Trimmers—Salaries and Expenses
Other Assistants—Salaries and Expenses
Sales District Automobiles and Trucks
Sales District—Collectors
Commissions
Conventions
Supplies and Sundries

Total Salesmen's Salaries, Expenses, etc.

Freight Outgoing
Rent, Storage, and Insurance
Traffic and Shipping
Stable and Garage

Total Shipping Expense

General Advertising
Coupons

Total Promotion Expense

Administrative—Office
Executive

Total Administrative Expense

Total Selling and Administrative Expense
Net Profit or Loss
Net Sales

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port of the general sales manager and the availability of the basic data of sales cost for the company as a whole as shown by the profit and loss statement.

For the profit and loss statement which represented the operations of the company as a whole, no problem of proration to the product group departments was involved in recording selling and administrative expense. As stated, however, the manufacturing operations of the company were carried on by two separate product group departments, and factory costs and expenses were compiled for each. The relation of production costs to sales for the products of each department varied distinctly during a given operating period, and accordingly it was desirable to measure the relative profitableness of the two departments. It was decided that this could be done by prorating the "Total Selling and Administrative Expense" to the product group departments and preparing, not a formal profit and loss statement, but a so-called expense encyclopedia which would show separately for each product department the ratios existing between sales and selling and administrative expenses, as well as between sales and factory costs and expenses. It was recognized, in view of the fact that no separation was made for the product group departments in the sales organization, that such prorations of selling and administrative expenses of necessity must be arbitrary. For a few items of expense shown on the profit and loss statement it was possible to secure records of direct charges for the products of the two departments. In the case of "Freight Outgoing" and "Storage and Insurance," for instance, charges could be allocated to the product group departments on the basis of actual tonnage involved; expenses for "Commissions" also were shown separately by products. In general, however, the expenses were prorated to the product group departments on the basis of net sales. In the expense encyclopedia book maintained in the controller's office there were shown for each operating period the ratios to net sales by product group departments of each of the headings on the profit and loss statement.

In 1926 the controller stated that it had been his conviction for several years that quarterly profit and loss statements should be prepared by his department for each of the company's sales districts. It was his opinion that the general officers and directors of the company should have available for each district not only the information shown on the cost-to-sell reports of the general sales manager but also those data which were excluded from the cost-to-sell reports but shown on the profit and loss statements.

For instance, expenses such as "Freight Outgoing" and "Storage and Insurance," which were incurred for each sales district, should be shown in relation to the sales of that district. The controller hoped that eventually the control division would take over the work of compiling records which at that time were accumulated in the general sales office. He argued that sales and sales expense reports, even though used only for controlling district sales activities, should be tied in with the accounting records of the company and that all accounting and statistical reports should be centralized in the one control division. He was convinced that with his program in operation less confusion would result from discrepancies between different sets of records and that facility of control on the part of the general sales manager would be strengthened rather than weakened. He admitted that at the outset a slightly longer time would be required for the preparation of such reports, but he believed that when the system had been developed the reports could be prepared by the control division almost as rapidly as they then were prepared by the sales manager's office.

On several occasions the controller had suggested to the directors that quarterly profit and loss statements should be established by sales districts. Decision on this suggestion had been delayed, however, since the records of the general sales manager furnished him adequate information for sales control and, when supplemented by the profit and loss statement, afforded sufficient data for use by the general officers and directors.

COMMENTARY: This case presents a multiplicity of issues on detailed points. For example, a technical question is presented on the selection of the statistical unit used by the general sales manager in setting quotas and in analyzing sales performances. That unit was one case of "Product A." The method of converting the quantity figures for the sales of other products into Product A units amounted to a weighting of the sales figures in accordance with the normal differences in the prices for the various products. For control purposes these quantitative figures, weighted by relative normal values, had two distinct advantages over figures for sales in dollars. The figures for sales in dollars were influenced by variations in the quantities sold at each of the company's three scales of list prices. They also were affected by fluctuations in the general level of prices. Such fluctuations impair the utility of sales figures in dollars for making comparisons over a

period of several years. The plan which the general sales manager adopted avoided this obstacle.

The decision of the controller in 1924 to have "Salaries and Expenses of Window Trimmers," "Salaries and Expenses of Canvassers," and "Salaries and Expenses of Other Salesmen's Assistants" separated from "Salesmen's Expenses" was sound. The sales activities of the company could be supervised and planned more intelligently by the general executives with these accounts subdivided. Such a distinction between selling expenses and sales promotion expenses was desirable. The segregation was not carried far enough on the profit and loss statement, however, for the sales promotion expenses just cited remained under the heading "Total Salesmen's Salaries, Expense, etc." instead of being placed under a heading of "Promotion Expense." A complete statement of "Promotion Expense" was fully as important as preservation of the old grouping for purposes of historical comparison; moreover, that historical comparison could easily have been prepared when needed.

The foregoing questions raise issues of importance, and numerous other questions of similar scope are suggested by the case. But instead of focusing attention on those issues, I shall center my discussion on the broader question of whether there were inherent obstacles to making the controller's reports more readily usable for the general sales manager without rendering them less dependable for the stockholders and chief executives of the company. While it is granted that the practice of the Tarpon Company, whereby the controller prepared the reports for the general executives and the sales department compiled records for the sales manager and district managers, was yielding satisfactory results, several other companies have found it advisable to follow a different course by providing for the compilation of such sales reports by their accounting or statistical departments. The question, furthermore, is not merely one of where such records should be compiled but also of whether the data on such reports should conform to data on the books of account relating to such activities. The practice of the Tarpon Company, therefore, satisfactory though it may have been, cannot be commended to others as a guide without careful examination of these questions.

In order that accounting and statistical reports may be useful to a divisional executive, like the general sales manager, in performing his executive tasks, the reports not only must be accurate, but they also must be available at sufficiently frequent intervals and promptly enough to avoid staleness. If the reports are to be usable by the divisional executive, furthermore, the items which are not controllable by him should be fully separated from the controllable items, and the report

on the operations of each district manager should include only those items which are controllable by the district manager.

In the classification of expenses used by the Tarpon Company in its profit and loss statement, general administrative expense, exclusive of the portion charged against manufacturing operations, was shown as a separate item under "Selling and Administrative Expense." It is common business practice to group operating costs and expenses in two main divisions: (1) Manufacturing Cost and Expense, (2) Selling and Administrative Expense.[3] Despite the frequency with which that plan is used, however, its soundness is open to question when the problem is approached from the point of view of an operating executive, such as the general sales manager.

In the case of the Tarpon Company, the segregation of administrative expense within the group of selling and administrative expenses made it possible to avoid confusion in using the reports for administrative purposes. Nevertheless, it seems to me to be preferable, even in such an instance, to show general administrative expense wholly segregated from marketing expense. A more clear-cut picture of a company's operations than is shown by the twofold grouping just referred to can be presented by a classification of the company's activities and of its accounts into three groups: (1) Production, (2) Marketing, and (3) General Administrative. The basis for such a classification of activities was ably set forth by A. W. Shaw in his book, *An Approach to Business Problems.* As Shaw points out, "Administration" includes those activities which serve to supervise, coordinate, and facilitate the activities of the operating departments of a business. These are activities which are beyond the control of an executive of an operating division, and the recognition of that fact should be manifested in the classification of the accounts. In the Tarpon Company's case, the full acknowledgment of that point of view would have resulted in setting off general administrative expense as entirely separate from selling or marketing expense.

On his "cost-to-sell" report the general sales manager included only controllable items. The classification of selling expenses on the quarterly profit and loss statement prepared by the controller, however, included items not controllable by the general sales manager, and the classification was not one that readily lent itself to the preparation of district reports. The item "Sales District Automobiles and Trucks"

[3] The grouping of costs and expenses in these two divisions is approved by several cost accountants. See A. Hamilton Church, *Manufacturing Costs and Accounts,* pp. 235-236; George S. Armstrong, *Essentials of Industrial Costing,* pp. 51-52; William B. Castenholz, *Cost Accounting Procedure,* p. 254. Joseph R. Hilgert, in *Cost Accounting for Sales,* p. 89, recognizes the necessity of separating selling and administrative expenses, but refers to administrative expense as a "voluminous 'catch-all'" (p. 93).

on the controller's report, for instance, included expenses for delivery trucks which were under the control of the traffic manager. Inasmuch as the automobile department kept the accounts for salesmen's automobiles separate from the accounts for trucks, there was no inherent necessity for combining the two accounts on the profit and loss statement. That was one item included in "Total Salesmen's Salaries, Expenses, etc." which was not under the control of the general sales manager. "Sales District Collectors" was another item, included in that total by the controller, over which the general sales manager did not have direct supervision.

These examples show that the arrangement of the items on the profit and loss statement was not in accordance with administrative responsibilities. There was no insuperable obstacle, however, to a grouping of items to conform to lines of authority, or to the presentation of the accounts separately for the sales department. Both the controller's reports and the general sales manager's cost-to-sell reports were compiled quarterly. Hence, if the preparation of the cost-to-sell reports for the general sales manager were to have been undertaken by the controller's department, they would have covered the same periods covered by the controller's quarterly profit and loss statements. Inasmuch as the general sales manager was interested primarily in a summary of the accounts for the significant, variable expenses under his control, there was no apparent obstacle to having his report prepared almost as promptly by the controller's department as by the sales department. It was not necessary to await the completion of the inventory compilations and the distribution of fixed charges in order to give the general sales manager the information that he desired.

The monthly reports on district expenses, furthermore, could have been compiled readily by the controller's department if the classification had been set up with that end in view. For such monthly reports it would not have been practical, of course, to take inventory and close the books each month, nor would that have been necessary. The summaries of the accounts significant to the district managers could have been taken off the books at the end of each month.

The general sales manager used "orders received" in preference to "billings" as the basis for computing expense ratios on the cost-to-sell reports. For this statistical purpose "orders received" was a better base, since it permitted direct correlation of sales activities with the results which those activities produced in the form of orders. There was no reason, however, why the controller's department could not have compiled the monthly statistics for orders received to be used on the general sales manager's reports.

From this view of the facts, it appears that there was no insuperable

obstacle to having the quarterly cost-to-sell reports for the sales department and the monthly district reports compiled by the controller's department, provided the doctrine of including only controllable items in the report for each executive was accepted. The controller's point of view was correct, I believe, that his department should have prepared the reports on marketing expenses, provided he could have furnished the general sales manager and the district managers with the reports which those executives needed for purposes of sales control. The general sales manager's position was sound that the controller's reports as then prepared were not properly classified to meet the needs of the sales department. If changes in the classification of the accounts had been made to meet the general sales manager's requirements, then the controller's department could have compiled the sales reports and those reports could have been tied into the general accounts—a commendable objective.

The point of general significance that I have sought to emphasize in this case is the necessity, in planning the classification of marketing expenses, of defining the items of expense so that those which are controllable by each executive can be segregated for administrative reports. The proper classification should be adopted at the outset, if possible, with facility for subdivision or elaboration as the business expands. Thereby continuity of comparisons can be preserved as new executive requirements are encountered, and the administrative reports can be harmonized with the general accounts of the company.

M. T. C.

May, 1927

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